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THE ROLE OF COMPETITIVE INTELLIGENCE IN BUSINESS MANAGEMENT

Концептуальну основу та аналіз ролі конкурентної розвідки у вивченні конкурентів можна представити, синтезуючи інформацію від учасників ринку: постачальників, клієнтів, галузевих конкурентів, а також власного персоналу компанії.

Конкурентна розвідка прояснює важливість достовірних даних та допомагає приймати більш ефективні рішення, що ґрунтуються на фактах, а не на простому пророцтві.

Метою даної статті є дослідження ролі конкурентної розвідки, її зростаюча потреба у практичному застосуванні у бізнеспроцесах і поєднання досягнень різних галузей людської діяльності, саме психологію, логіку, економіка, менеджмент, маркетинг тощо.

Авторами проведено аналіз методів бізнес-конкурентів можна розділити на 3 групи: розвідка самостійно, агентурне розслідування та промислове шпигунство.

Розглянуто трансформацію ключових складових конкурентної розвідки як процес, в основі якого лежить екосистемний підхід до організації, клієнтів та конкурентів в сучасних умовах.

Представлено огляд праць вчених з даної тематики як вітчизняних, так і зарубіжних, вивчено ефективні інструменти та новітні підходи застосування конкурентної розвідки керівництвом компанії в епоху глобальної конкуренції.

Маючи правильні інструменти збору інформації про конкурентів шляхом впровадження науково-технічної розвідки дає змогу оцінити можливий ефект негайних правильних управлінських рішень з боку ринкових загроз, ризиків, а також визначення та впровадження перспективних варіантів нової технології щодо існуючих активів та перспектив організації.

Компанії завжди будуть потребувати точної та своєчасної інформації, щоб, користуючись передовими технологіями обробки даних та спеціалізованим програмним забезпеченням, запобігати підривним діям існуючих конкурентів та нових гравців для забезпечення конкурентної переваги.

The conceptual basis and analysis of the role of competitive intelligence in the study of competitors can be presented by synthesizing information from market participants: suppliers, customers, industry competitors, as well as the company's own personnel.

Competitive intelligence clarifies the importance of reliable data and helps you make more effective decisions based on facts rather than mere prophecy.

The purpose of this article is to study the role of competitive intelligence, its growing need for practical application in business processes and the combination of achievements in various fields of human activity, namely psychology, logic, economics, management, marketing, etc.

The authors analyzed the methods of business competitors and can be divided into 3 groups: independent intelligence, agency investigation and industrial espionage.

The transformation of the key components of competitive intelligence is considered as a process based on an ecosystem approach to the organization, customers and competitors in modern conditions.

An overview of the works of both domestic and foreign scientists on this topic is presented, effective tools and the latest approaches to the use of competitive intelligence by company management in the era of global competition are studied.

Having the right tools for gathering information about competitors through the implementation of scientific and technical intelligence makes it possible to assess the possible effect of immediate and correct management decisions on the part of market threats, risks, as well as the identification and implementation of promising options for new technology in relation to the existing assets and prospects of the organization.

Companies will always need accurate and timely information to use advanced data processing technologies and specialized software to prevent the disruptive actions of existing competitors and new players to ensure a competitive advantage.

Ключові слова: конкурентна розвідка, науково-технічна розвідка, конкуренти, методи управління бізнесом, екосистема, Асоціація фахівців зі стратегічної та конкурентної розвідки, бенчмаркінг, інструменти конкурентної аналітики.

Key words: competitive intelligence, scientific and technical intelligence, competitors, business management methods, ecosystem, Association of Strategic and Competitive Intelligence Specialists (SCIP), benchmarking, competitive analysis tools.

Introduction. Benjamin Gilad is a pioneer in the field of competitive intelligence, strongly recognizing the relationship between competitive intelligence and strategy, conducting and supporting research on key trends that affect the practice of competitive intelligence and its ability to support key decision makers and their organizations.

The work uses a literary and conceptual research approach. A review of foreign literature showed that the concept of competitive intelligence is multifaceted, where artificial intelligence plays a big role in the study and monitoring of competitors, and also showed how important competitive intelligence is for business managers.

Presentation of the main material. Modern marketing includes data scientists and analytics functions that collect and analyze vast amounts of customer data, whether transactional (still the dominant form) or textual (social media analysis) to develop an optimal «*customer experience*». New technological tools can help, but they cannot replace what savvy strategists are doing.

Competitive intelligence (CI) is the activity of a company that involves the collection and analysis of information about competitors, competitive products and services. All information and analytical work is carried out exclusively within the framework of ethical standards.

Competitive intelligence serves as a strategic tool that facilitates the identification of potential opportunities and threats [Du Toit, 2013] [1] and stimulates innovation activity [Rodriguez-Salvador et al., 2013] [2].

This is the process of accumulating information about the future and determining medium and long-term prospects to support decision-making and prepare operational joint actions.

Competitive intelligence and business intelligence can reduce uncertainty and risk, as well as increase the likelihood of target audience acceptance of proposed policies and early identification of opportunities.

Competitive intelligence is presented in three main areas (Fig. 1) [3, 16]:

Technical side. It involves the collection of all information about products, services, new developments [16].

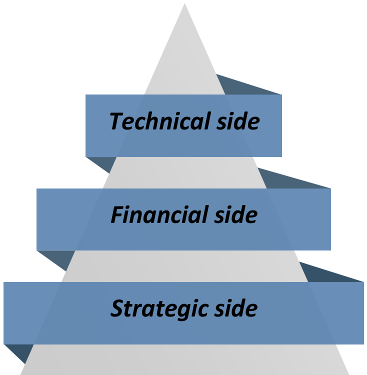


Fig.1. Main areas of Competitive intelligence

Financial side. It implies the study of pricing, the collection of information about the current financial situation of competitors, the study of reports from open sources. Such competitive intelligence helps to find out the financial strength of your own company.

Strategic side. It involves the study of corporate policy, the organization of the work of competitors and other information related to the functioning of a competitor company [16].

The study of the competitive environment, conducted in all three directions, allows you to conduct a thorough competitive intelligence and solve the following tasks (Fig. 2) [3]:

Fig.2. Tasks of the competitive environment

- find new opportunities for business development and competitiveness;
- determine the pricing policy of competitors;
- improve marketing strategy;
- build a forecast of market changes;
- improve advertising strategy;
- find new methods of business management;
- predict the actions of competitors;

• improve the quality of customer service and communication strategy;
• change the positioning of the company;
• improve the trade offer.

The more information leader knows about competitors, the clearer his company's position in the market will be.

Competitive intelligence produces useful information that aids in decision making and provides a competitive advantage for businesses. For competitive intelligence to be effective, it must be properly located within the enterprise [4].

Unlike corporate espionage, competitive intelligence involves the ethical collection of information from both published and unpublished sources, such as [5]:

• online search (competitor websites, job postings, business information aggregators, your competitor's social media platforms);
• press releases;
• sales team (they collect information organically when someone calls potential customers);
• industry events, conferences and trade shows;
• suppliers and distributors who operate in your industry and may serve competitors;
• the competitors themselves.

All methods of analyzing business rivals can be divided into 3 groups: *intelligence* on your own, *investigation* through an agency and *industrial espionage*. The latter is an illegal method, so for now we are only interested in legal methods.

It is extremely important to remember that effective competitive intelligence goes beyond your internal data - otherwise you will just be doing day-to-day market research. To write a competitive intelligence report, it is important to look beyond own company and all external sources.

The article by Marie-Luce Kьhn, Wilma Viviers, N. Syudass and J. Kalof "*Ecosystem for monitoring the business environment beyond the ''first world*'': the case of South Africa"[6] provides an insight into the ecosystem of the CI, its elements and methods for evaluating the latter. Since most of the work on CI focuses on the analysis of practical activities, the concept considered by the authors allows us to conclude that the actual practice of CI is determined by the presence of an appropriate ecosystem to support organizations.

In particular, the elements of such an ecosystem include (Fig. 3):

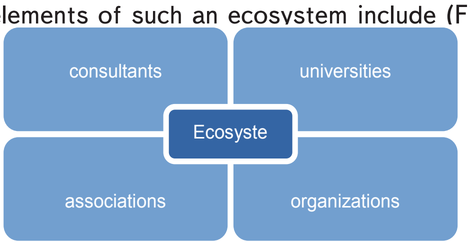


Fig.3. The elements of an ecosystem

• consultants and other CI service providers;

• universities that recruit new talent to organizations, offer training programs for existing staff, and provide hands-on support for CI implementation;

• associations that develop educational and professional standards;

• organizations (private, public, non-governmental) for which CI is part of their daily activities.

The concept of a business ecosystem was proposed in [Moore, 1993], which noted that companies should not be considered as players in a separate industry, but as part of a business ecosystem that unites many industries [14].

Ecosystem participants evolve through collaborative innovation: collaborating (and competing) to develop new products, meet customer needs, and ultimately master the next generation of innovations.

The ecosystem includes suppliers, distributors, consumers, government agencies, processes, products, and competitors. [Hayes, 2019]: Everyone affects and is influenced by others, which leads to continuous evolution and requires participants to be flexible and adaptive in order to survive (similar to a biological ecosystem) [8].

Other authors have also found this concept useful. For example, in [Hult et al., 2020, p. 38] the international business ecosystem is defined as a set of business entities, including stakeholders, organizations and countries involved in exchange, production, business activities and cross-border trade based on a combination of competition with partnership [15]:

• Academic organizations

• Consulting firms

• Governmental support

• Associations of the competitive intelligence.

Association of Strategic and Competitive Intelligence Professionals (SCIP) SCIP, founded in 1986, [7] is the world's largest professional association in the field of CI with an established ecosystem and areas of work, including, in addition to CI itself, sales, marketing, strategy development, business development, management products, creating innovations. It brings together competitive and market intelligence professionals, consultants, strategists, educators, students and non-profit experts from various employment modes. Over time, sophisticated analytics came to the fore.

The new approach, called "*integrated intelligence*" (integrated intelligence) [8], involves the use of artificial intelligence.

There is a trend of moving away from gathering information about competitors towards areas that increase the added value of information products, including analysis and consideration of broader aspects of the operating environment (consumers, government, technology, economics, etc.).

Nanette Bulger proposed the concept of "*comprehensive intelligence*" [Bulger, 2016], which does not contradict the above definition, but expands its scope and range of required skills [9].

Initially, CI focused directly on the study of competitors. Subsequently, the new competencies required to assess the current economic and political situation in specific regulatory conditions were integrated into the concept.

Today, competitive and market intelligence requires an understanding of marketing features, market segmentation, the formation of a competitive environment, and the assessment of rivals [Calof, 2016] [10].

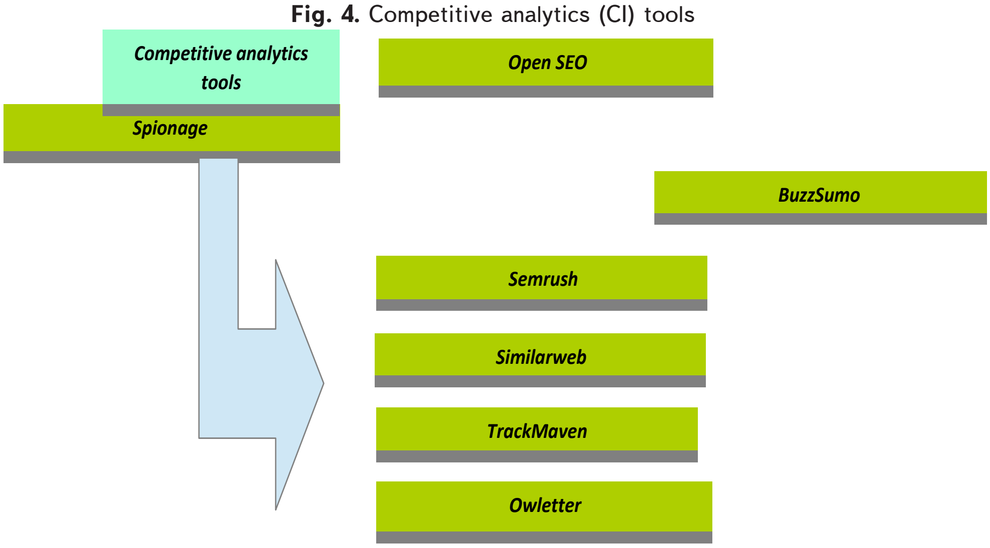
How Competitive Intelligence Works?

Competitive intelligence involves the ethical collection of information from both published and unpublished sources, such as [11]:

• on-line search (competitor websites, business information competitor)
• press releases
• sales team
• suppliers and distributors
• competitors.

Competitive analytics (CI) tools can give us insight into our competitors' digital marketing strategies, which can help us outperform them in creating new actionable strategies, such as (Fig.4):

Fig. 4. Competitive analytics (CI) tools



• *Open SEO* Stats is a tool when we see any competitor's website.
• *Spionage* helps you understand your competitors' search marketing strategies by identifying which keywords your websites rank for most effectively.
• *BuzzSumo* - effective content related to major topics, niche or industry.
• *Semrush* will give you an estimate of which keywords will provide the best ROI
• *Similarweb* - web research where you can learn more about your competitor's audience
• *TrackMaven* provides personalized metrics and reports to track competitors
• *Owletter* is a good tool for SMBs who want to focus on monitoring their competitors' *email marketing* performance.

Competitive intelligence, like digital marketing in general, is not a one-time process. It takes time and consistency. By having the right tools and striving to monitor and adjust our strategies over time, we can learn how to stay ahead of the competition, attract the perfect audience, and win loyal customers.

The Internet is the key source of information for the CI. This is followed by primary sources such as company employees, customers, and industry experts. Most often, respondents use a set of five analytical methods. SWOT analysis and competitor analysis are the most popular.

Optimization of corporate innovation activities is formed by the introduction of information about innovations. *Science and Technology Intelligence* (STI) is an important branch of Competitive Intelligence (CI) that collects information about technologies using data mining tools from patents, scientific literature, technology exhibitions and other sources of information about who, where, why and how quickly develops or uses new technologies [8].

There are many TCR models that describe the necessary data to develop and support innovative concepts. One of the most effective approaches was proposed in the mid-1990s. including six *NOMMAR* factors [8] (Fig.5):

• *Need*: Is there evidence of a significant unmet need in the community?

• *Option*: Will there be a technology that will successfully meet this need?

• *Market*: Is there a market for such an offering, given competitors' product portfolios, production costs, and the operational and organizational changes that such an innovative product or service might entail?

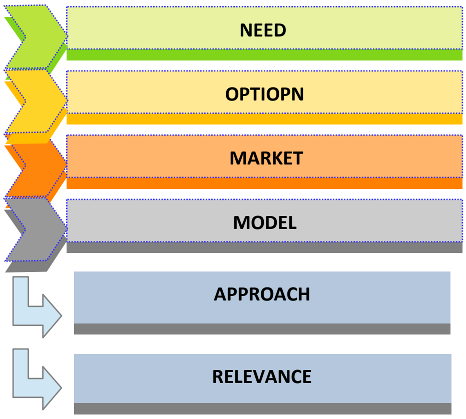


Fig.5. Model NOMMAR factors

• *Model*: Is there a known business model that adequately describes how this product can be profitably developed, produced and maintained?

• *Approach*: Is there an approach that is highly likely to enable the organization to successfully enter the relevant market?

• *Relevance*: if possible, is it necessary; is it in line with the overall corporate strategy?

To solve this problem, the methods of competitive technological intelligence (KTR) were used. The KTR methodology includes the collection, analysis and processing of scientific and technological information to form the relevant knowledge that is used in the course of decision-making in the organization [Colakogly, 2011; Rodriguez et al., 2019] [12].

Competitive technology intelligence is an important methodology for analyzing new technologies to improve the quality of strategic decisions in innovation activities produced by additive technologies - known as 3D printing (rapid prototyping and free-form objects), remains a relatively new technology. For this purpose, multiple linear regression analyzes of scientific articles and patents submitted on the Scopus and PatSnap platforms were performed [Mancilla-de-la-Cruz J., RodriguezSalvador M., Ruiz-Cantu L. (2020)] [13].

Not only start-up businesses, but also experienced business structures resort to studying their rivals. Competitive intelligence methods are used in their work by such Silicon Valley giants as Google, Apple, Facebook, Microsoft and Amazon and showed the following results (Fig.6):

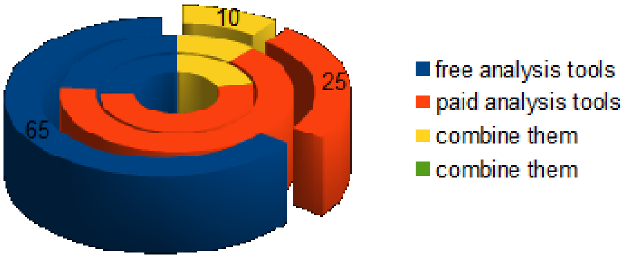


Fig. 6 Analysis of the results of use CI

• 65% prefer free analysis tools,
• 25% prefer paid ones,
• 10 % the rest combine them in their work.

The study of the competitive environment allows you to conduct competitive intelligence and solve the following tasks:

• find new opportunities for business development and competitiveness;
• determine the pricing policy of competitors;
• improve marketing strategy;
• build a forecast of market changes;
• improve advertising strategy;
• find new methods of business management;
• predict the actions of competitors;
• improve the quality of customer service and communication strategy;
• change the positioning of the company [3].

The market is changing very quickly, so all research must be done efficiently and quickly.

It is necessary to conduct competitive intelligence regularly in order to increase the competitiveness of own company and make informed management decisions. To get answers when making decisions, they use the latest marketing techniques today (Fig.7) [3]:

• neuromarketing

• pop-up

• CRM Marketing

• onboarding

• crowd marketing

• Cohort analysis

• Referral Marketing

• performance marketing.

Referral marketing is an activity aimed at promoting a company, its products and services through existing and potential buyers.

*The concept of performance marketing i*s based on the fact that investments should be justified and bring results in the shortest possible time, ideally immediately. This approach allows you to achieve goals when the budget is limited, and sales are needed now.

Crowd marketing is a type of hidden advertising in which a brand or its products are mentioned in social networks, forums or answer aggregators in order to promote the brand.

With the help of *onboarding,* the company disposes users from the first steps of acquaintance, "immerses" them in work and sets them up for further communication.

Pop-up is an effective way to attract the attention of website visitors.

CRM Marketing systems are focused on interaction with customers and potential customers, activity tracking.

Cohort analysis allows you to explore changes in the behavior of groups of users over time. The data obtained helps to improve the marketing strategy, refine the customer journey and sales. With cohort analysis, we can [3]:

• analyze the impact of marketing decisions on the level of retention;

• find the most effective channels to attract customers;

• evaluate the effectiveness of advertising campaigns;

• find ways to increase the engagement of users with low activity and minimize customer churn;

• see the need to connect a new promotion channel;

• assess the impact of seasonality on the level of sales;

• get to know the target audience better [3].

Neuromarketing - use of the neuromarketing method, which allows you to track and analyze the reaction of customers [3].

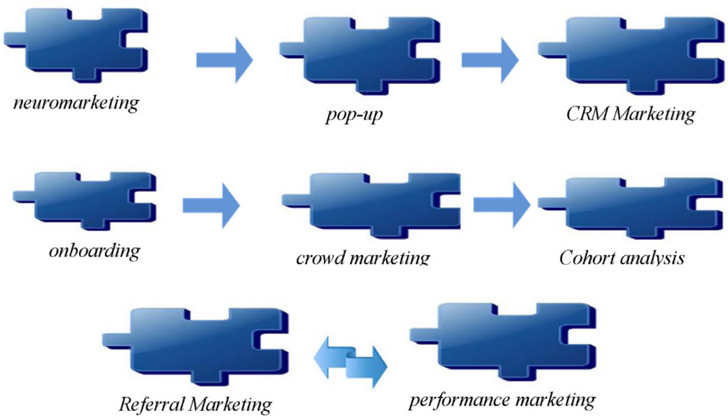


Fig. 7 Innovation marketing techniques

The Benchmarking method should also be noted separately.

Benchmarking is the process of comparing your performance with the best companies in the market and industry, and then implementing changes to achieve and maintain competitiveness.

In general, the key ideas of benchmarking are as follows (Fig.8) [17]:

Identifying best-in-class organizations;

Obtaining the necessary information using appropriate methods of collecting information for self-assessment;

Work on self-improvement through the implementation of changes aimed at achieving and exceeding established standards.

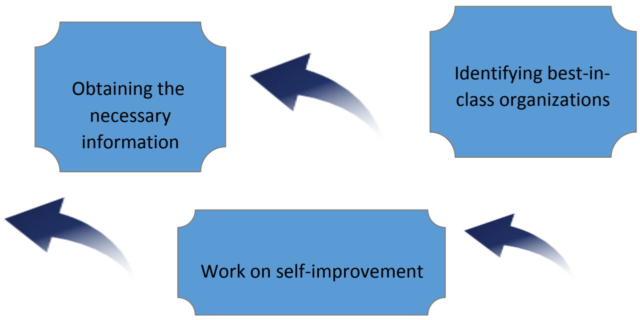


Fig.8. Key ideas of benchmarking

Conclusions and prospects for further research. *Competitive intelligence* is an effective marketing tool designed to analyze the competitive environment by collecting information about competitors. But it is important to remember that regular monitoring will greatly expand the vision of strategic planning for future development and success.

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