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## **5G-Digital marketing strategy of global company in the field of telecommunication**

### **Abstract**

*Object:* The purpose of the study is to form the methodological foundations of the 5G marketing strategy of the leading enterprises in the field of telecommunications on the example of the global company Huawei. Justification of the methodology for determining the competitive advantages of using the 5G marketing strategy. The object of the study is the marketing activity of global companies in the telecommunications market in conditions of digitalization.

*Methods:* System-structural method, diagnostic method, logical-comparative, comparative analysis, statistical analysis, factor analysis, methods of grouping and classification.

*Findings:* The theoretical and methodological foundations of the Huawei company's development of marketing strategy are summarized.

Strategies for standardization and adaptation are considered, including innovative smartphones and 5G devices based on strategic partnerships in developed countries, as well as examples of successful adaptation to legal, technological and political issues. The conducted analysis determined the advantages of implementing the marketing strategy of Huawei 5G promotion in Ukraine, standardization of 5G technologies and solutions, the study made it possible to develop proposals for the development of the company's brand and promotion strategy within the framework of the study of the process of developing the company's marketing strategy. Conducted SWOT analysis of Huawei's activities in Ukraine. The article analyses and conducts a comparative analysis of the marketing strategies of Huawei's main competitors (Samsung, Apple), and proposes priority strategic growth vectors.

*Conclusions:* The article substantiates and systematizes the theoretical and methodological approaches to researching the process of developing the company's marketing strategy, defines the main means, methods and technologies for the formation and justification of Huawei's marketing strategy; practical recommendations were developed to strengthen the company's marketing strategy in the field of telecommunications technologies in Ukraine.

**Keywords:** marketing strategy, Huawei management system, brand, analysis, opportunity, 5 g, communication market in Ukraine, sustainable development strategy, cloud engineering management structure, environmental efforts.

### **Introduction.**

In the conditions of the development of the digital economy and the general trend of digitalization of society, a gradual change in the paradigm of the concept of marketing and the methodology of forming marketing strategies is being carried out. The rapid development of information and communication technologies and the digitalization of society, which is taking place against the background of "Industry 4.0" technologies, contributed to the transformation of traditional approaches to the formation of marketing strategies. This trend is especially reflected in the activities of global companies, which are market leaders and funders of the introduction of innovations. In the context of the identified issues, the field of mobile communication is the most dynamic in terms of the implementation of innovative technologies in all areas of enterprise activity, including in the formation of marketing strategies. In addition, the global market has clearly identified global market-leading companies that are pioneers in the implementation and dissemination of innovations based on the achievements of "Industry 4.0". Which, of course, activates a change in the methodological techniques of marketing strategies that are developed and implemented in the market. The actualization of the issue of the formation of a marketing strategy on the global market in the field of mobile communications is justified by

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the influence of digital technologies on the transformation of traditional methodological approaches in the formation of marketing strategies of global companies.

### ***Literature Review***

Many scientific works of famous scientists in the field of marketing management are devoted to the substantiation of traditional approaches to the conceptual foundations of marketing, including Porter M. (Porter, 1985), Doyle P. (Doyle, 2003), Kotler F. (Kotler, Keller, 2018), Lamben J.J. (Lamben, 2011), McDonald M. (McDonald, 2011), Oklander M. (Oklander et al., 2018), Chukurna O. (Chukurna, Zamlynskyi, 2023) and others.

Michael Porter works contains a practical implementation of marketing strategies, building strategic planning matrices. Porter proposed the first known typology of competitive strategies (basic competition strategies). Porter developed a well-known methodology for analyzing competitiveness to detuning the company's strategy based on the study of competitors' actions and the market as a whole (Porter, 1985).

Doyle P. explores such issues as the formation and implementation of business strategies; strategic market planning, segmentation, positioning, and the marketing mix; market drivers and competitive strategies. R. Doyle has gained worldwide fame through teaching and research in the field of marketing and business strategies. P. Doyle advised the most famous international companies, including Coca-Cola, Shell, IBM, Nestle, Hewlett-Packard, British Airways, and many others (Doyle P., 2003).

Digital transformation contributed to a change in the marketing paradigm and the formation of a new worldview in the field of application of marketing tools in conditions of digitalization.

A critical review of the evolution and periodization of the development of marketing theory is widely illuminated in the scientific works of M. A. Oklander (Oklander et al., 2017; Oklander et al., 2018). Oklander M.A. provides several definitions of digital marketing and considers it as a form of marketing of mass customization, a marketing model of the 21st century. He proves that digital marketing is "a type of marketing activity that, using digital channels and digital methods, allows targeted interaction with target market segments in virtual and real environments" (Oklander et al., 2017). Determining that the main strategic direction of digital marketing is a personalized relationship with users, and the promotion channels are: the Internet, local networks, computers, mobile phones, digital television, advertising displays, interactive screens, POS terminals. It substantiates the concept of digital marketing, as a result of the evolution of Internet marketing development (Oklander et al., 2017). In the context of this campaign, digital marketing is considered as individualization diagnosed with consumers, which is accompanied by the active use of digital promotion tools.

The term "Digital marketing" (digital or interactive marketing) refers to the use of various types of digital channels for the promotion of goods on the market for target consumers and businesses. Another definition provided by Danko T. P. interprets digital marketing as marketing that provides interaction with customers and business partners using digital information and communication technologies and electronic devices, in a broader sense it is... the implementation of marketing activities using digital information and communication technologies (Danko, Skorobogatyh, 2005).

Karpishenko O.O. digital marketing means the use of all possible forms of digital channels for the promotion of a company and its products. Television, radio, Internet, social media are all digital marketing tools (Karpishenko, Lginova, 2015).

Striy L., Chukurna O., Tanashchuk E. consider the problems of the peculiarities of the marketing concept in the field of development of trends in the telecommunications market (Striy et al., 2022).

Given the global nature of changes taking place against the background of digitalization, the methodology of forming marketing strategies has undergone significant changes. The peculiarity of activity in the field of mobile communications is that it is global companies that become leaders of digital innovations, introducing new technologies, contributing to a change in the marketing paradigm. Since the innovative technologies that are introduced affect the development of other spheres and sectors of the international economy. Thus, stimulating the development of information and communication technologies in related sectors of the economy. This is the unique feature of mobile communication, as a basic information and communication technology, which is used as one of the marketing channels for the promotion of information, simultaneously performing the technological function of accumulating and storing information. This creates technological opportunities for the development of digital marketing.

Taking into account the significant contribution to the theory and practice of the development of the concept of digital marketing by outstanding scientists of our time, it should be noted that digital technologies

are spreading not only in the marketing activities of enterprises, but also in other areas. The development and spread of information and communication tools contributed to the emergence of new channels for the promotion of information, goods, ideas and services and the accumulation of large amounts of information that can be used throughout the life of the company and its brands. These trends affect the models and methods of forming marketing strategies in the digital economy. Including, reflecting on the activities of global mobile communication companies. In this context, the question of researching the problems of forming marketing strategies of global companies in the mobile communication markets becomes relevant. The object of the research was the global company Huawei, which is a mobile communications operator and successfully implements innovative solutions in the field of telecommunications services and the development and promotion of mobile phones.

### **Methods**

The following methods were used in this study. The System-structural method is used in the study of theoretical and methodological aspects of the formation of the company's marketing strategy. The Diagnostic method is used to diagnose Huawei's marketing strategy in the global smartphone markets and the Ukrainian market. The Logical-comparative method for conducting a comparative analysis of marketing strategies of Huawei's main competitors (Samsung, Apple). Statistical analysis methods for assessing the global smartphone market, identifying the main trends and trends in the smartphone market in Ukraine. Factor analysis is used to analyse factors that affect the development of the smartphone market.

Methods of grouping and classification for analyzing the types of the marketing strategy of the company, as well as for systematizing the factors of the internal and external environment that affect the development of the company's telecommunications industry. Forecasting method for predicting the main financial indicators of Huawei as a result of implementing a marketing strategy to promote the company in Ukraine by using the competitive technological advantages of 5G.

### **Results**

The development of information society and digital economy, its dynamic changes affect the foundation of marketing methodology. In the theory of strategic marketing, there are two approaches to the methodology of forming a marketing strategy: traditional; economic-mathematical and statistical models. The traditional approach to the methodology of forming a marketing strategy involves the use of matrix models. Recently, more and more attention among scientists was paid to economic and mathematical methods and models in the analysis of marketing activities of the enterprise and the formation of strategies. The use of economic and mathematical models allows you to get the best quality and reliable results than matrix ones. The emergence and further improvement of application programs simplify the use of mathematical methods and speed up the process of making marketing decisions when developing strategies. This aspect is particularly relevant in the context of informatization and digitization of society since it provides an opportunity to respond flexibly to changes in the external marketing environment and promptly adjust marketing information. Therefore, there is a need to systematize and improve the classification of methods and models used in the information of the company's marketing strategy.

The methodology of forming a marketing strategy in the conditions of the digital economy and the development of "Industry 4.0" technologies was studied using the example of the global company Huawei.

Huawei is a mobile operator operating in the market of mobile equipment and signal transmission and a developer of mobile phones. Thus, the company works on the B2B and B2C market, simultaneously covering different areas of activity in the same field of activity. Such a strategic approach provides opportunities to cover the global market while remaining in a certain business area. In order to form an adequate marketing strategy of the company in two types of markets, an assessment of its competitiveness was carried out specifically in the mobile phone market, noting the main competitors.

*Analysis of Huawei company competitiveness.* Competition in the smartphone market moved to a new level in 2019. On the one hand, the market itself is no longer growing, on the other-the onslaught of Chinese manufacturers has dramatically increased, forcing other companies to act much more actively than before. The rating is based not on personal preferences, but on the popularity of devices. It is based on statistics from the European analytical company StatCounter. It calculates the success of manufacturers based on how much traffic their devices generate in the global network. We will look at the main positions of the rating in detail, clearly demonstrating how the share of manufacturers has changed over the past six years. The key points were brand indicators for the first month of each year starting in 2014 and ending in January of 2020. Table 1 shows the change in top smartphone brands over the past six years to the beginning of 2020.

Table 1. Changes in Top smartphone brands in Ukraine over the past six years to the beginning of 2020, %

|                      | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Samsung              | 22,69 | 27,85 | 28,92 | 29,32 | 33,71 | 31,81 | 31,82 |
| Apple                | 25,86 | 23,52 | 22,75 | 19,58 | 19,73 | 19,64 | 22,85 |
| Xiaomi               | 0,05  | 0,07  | 0,52  | 0,72  | 2,16  | 4,85  | 7,88  |
| Huawei               | 0,85  | 0,95  | 1,57  | 2,59  | 3,78  | 5,26  | 7,87  |
| Oppo                 |       |       |       | 0,47  | 1,9   | 3,45  | 4,49  |
| LG                   | 2,79  | 2,99  | 4,01  | 4,28  | 3,87  | 3,48  | 2,78  |
| Motorola<br>Mobility | 1,81  | 0,89  | 2,28  | 2,18  | 2,12  | 2,64  | 2,72  |
| Lenovo               | 0,14  | 0,36  | 0,93  | 2     | 2,92  | 2,87  | 1,77  |
| Nokia                | 22,15 | 18,42 | 11,24 | 7,43  | 3,41  | 2,04  | 1,16  |

Note - calculated by the author based on (Rating of smartphone manufacturers 2021)

Based on analytical data, it can be seen that the main market leaders are the following brands: Huawei, Samsung, Apple, Xiaomi. It is these brands in the market of mobile phones and smartphones that are global leaders that have advantages in areas of innovation, marketing channels and technological advantages. However, the functions of the communication operator are performed only by the Huawei company, retaining the leadership in the introduction of new smartphone models that are focused on the new 5G communication standards. In the Ukrainian market, the distribution of shares of brand-companies that are manufacturers of smartphones shows the significant popularity among consumers of two brands — Samsung and Apple.

The distribution of the market share of smartphone manufacturers globally for the period 2019-2022 is presented in Fig. 1.

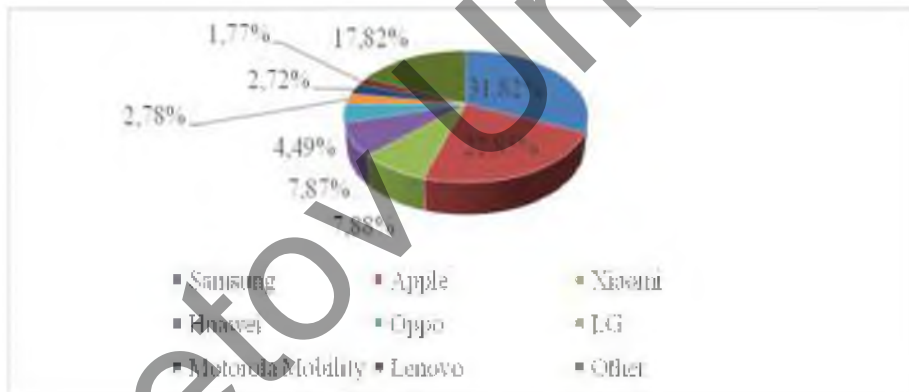


Figure 1. The balance of power among the key manufacturers of smartphones in 2019-2021

Note - calculated by the author based on (Rating of Smartphone manufacturers 2021)

The competitive distribution of the market among smartphone manufacturers in the world and in Ukraine is presented in Table 2, based on which it can be seen that the trends in the development of the Ukrainian market are in line with global trends. Comparative characteristics of the balance of power among the key smartphone manufacturers in the world and Ukrainian rankings, in 2019.

Table 2. Comparative characteristics of the balance of power among the key smartphone manufacturers in the world and Ukrainian rankings, in 2019-2021

| The largest manufacturers of smartphones | Part of the smartphone market, % |                 |               |
|--|----------------------------------|-----------------|---------------|
|  | Ukrainian rank, %                | Chinese rank, % | World rank, % |
| Samsung                                  | 31,82                            | 5,7             | 20,8          |
| Apple                                    | 22,85                            | 6,6             | 14,9          |
| Xiaomi                                   | 7,88                             | 8,7             | 8,7           |
| Huawei                                   | 7,87                             | 37              | 14,7          |

Note - calculated by the author based on (Rating of Smartphone manufacturers 2021)

The balance of power among the key smartphone manufacturers in Ukraine and China is somewhat different. Ukrainian consumers prefer Samsung and Apple manufacturers. Chinese consumers prefer Xiaomi and Huawei. The leader of the Chinese smartphone market is Huawei. For 2019, it was able to increase sales from 28.5 million units to 36.3 million units, or 27%. As a result, its market share increased from 27.4% to 37.0%.

Thus, Huawei's main competitors are Samsung, Apple, and Xiaomi.

In order to carry out a strategic competitive analysis, which is the basis for the formation of a marketing strategy, brand perception maps of the main smartphone manufacturers were developed. The logical presentation of which is presented in Tables 3-6. Next, draw up maps of strategic groups of Huawei's competitors.

Five experts on information and communication technologies and marketing activities of the IBI-Rating Agency were engaged to draw up maps of strategic groups of Huawei's competitors. The experts were asked to evaluate the level of consumer awareness, the range of smartphones, the brand update, the effectiveness of the marketing strategy and the improvement of smartphone manufacturing technology on a 10-point scale (1 — low level, 10 — high level). The consumer awareness score was calculated as the average score of 5 experts in information and communication technologies and marketing activities. The map of groups of strategic competitors of Huawei based on the ratio of indicators of smartphone market share and level of consumer awareness is presented in Table 3.

Table 3. Map of Huawei company's strategic competitor groups (The share of smartphone market / the level of consumer awareness)

|    | Smartphone manufacturer's brand | The level of consumer awareness (K1) | Smartphone market share, % (K2) |
|----|---------------------------------|--------------------------------------|---------------------------------|
| 1. | Samsung                         | 10                                   | 31,82                           |
| 2. | Apple                           | 10                                   | 22,85                           |
| 3. | Xiaomi                          | 9                                    | 7,88                            |
| 4. | Huawei                          | 9                                    | 7,87                            |

Note - calculated by the author based on (Official website of Huawei in Ukraine; Rating of Smartphone manufacturers 2021)

A map of groups of Huawei's strategic competitors in terms of smartphone market share and consumer awareness is shown in Figure 2.

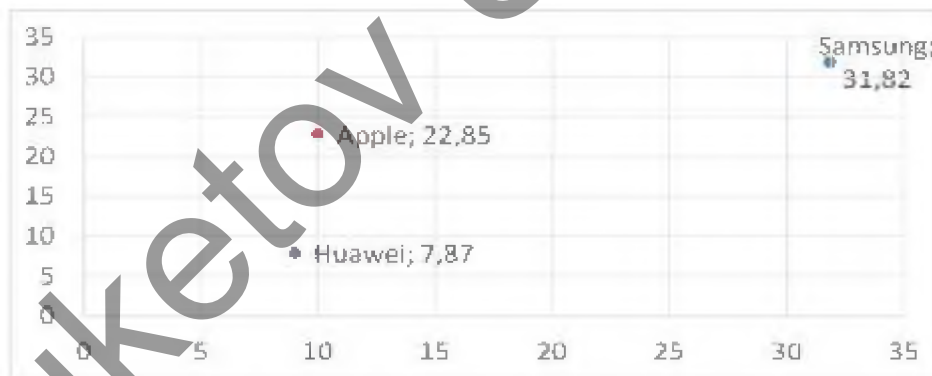


Figure 2. Map of Huawei's strategic competitor groups (Share of the smartphone market / the level of consumer awareness)

Note - calculated by the author based on (Official website of Huawei in Ukraine; Rating of Smartphone manufacturers 2021)

Analyzing the share of the smartphone market and the level of consumer awareness, we can conclude that the largest competitor of Huawei in the Ukrainian market is Samsung. As evidenced by the data in Table 4.

Table 4. Map of Huawei's strategic competitor groups (the structure of the assortment / updatability brand)

|    | Smartphone manufacturer's brand | Range of smartphones (K3) | Brand updatability (K4) |
|----|---------------------------------|---------------------------|-------------------------|
| 1. | Samsung                         | 10                        | 10                      |
| 2. | Apple                           | 9                         | 9                       |
| 3. | Xiaomi                          | 8                         | 9                       |
| 4. | Huawei                          | 9                         | 9                       |

Note - calculated by the author based on (Official website of Huawei in Ukraine)

Based on the selected catena for the product range structure and brand updatability, we can conclude that the largest competitor of Huawei in the Ukrainian smartphone market is Samsung.

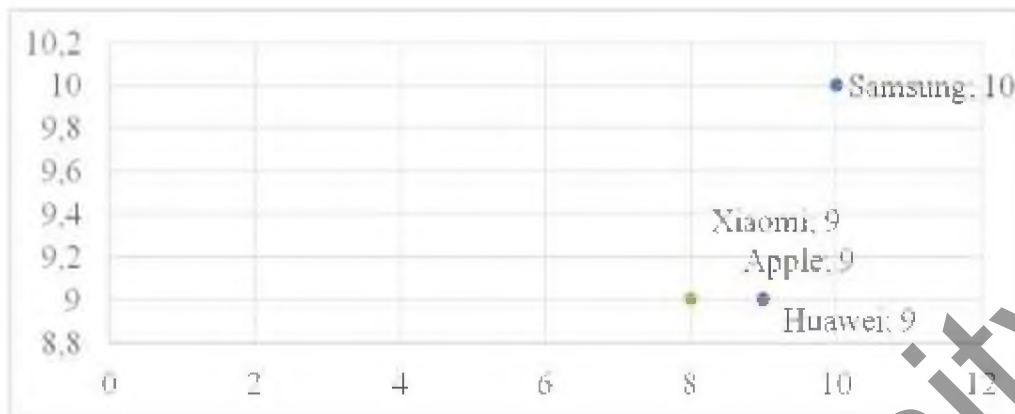


Figure 3. Map of Huawei's strategic competitor groups (the structure of the assortment/updatability brand)

Note - calculated by the author based on (Official website of Huawei in Ukraine; Rating of Smartphone manufacturers 2021)

Table 5 Map of Huawei's competitor groups (part of the smartphone market/effectiveness of the marketing strategy)

|    | Smartphone manufacturer's brand | Efficiency of using a marketing strategy (K5) | Smartphone market share, % (K2) |
|----|---------------------------------|---|---------------------------------|
| 1. | Samsung                         | 10  | 31,82                           |
| 2. | Apple                           | 9   | 22,85                           |
| 3. | Xiaomi                          | 9   | 7,88                            |
| 4. | Huawei                          | 10  | 7,87                            |

Note - calculated by the author based on (Official website of Huawei in Ukraine)

The analysis of the smartphone market share indicators and the effectiveness of the marketing strategy demonstrates the fact that the largest competitor of Huawei in the Ukrainian smartphone market is Samsung.

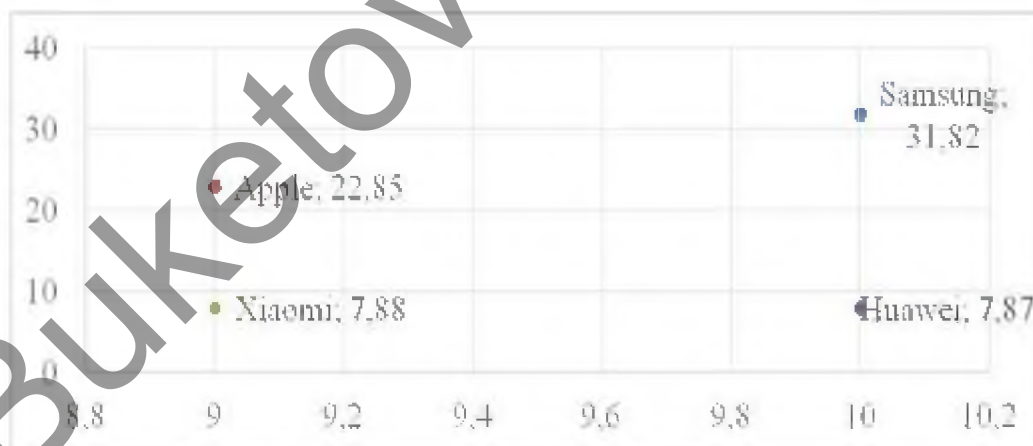


Figure 4. Map of Huawei's strategic competitor groups (part of the smartphone market/effectiveness of the marketing strategy)

Note - calculated by the author based on (Official website of Huawei in Ukraine; Rating of Smartphone manufacturers 2021)

Data for constructing a map of groups of Huawei's strategic competitors in terms of parts of the smartphone market and the improvement of smartphone production technology are presented in Table 6.

Table 6. Map of Huawei's strategic competitor groups (part of the smartphone market/improving smartphone manufacturing technology)

|    | Smartphone manufacturer's brand | Improving smartphone manufacturing technology (K6) | Smartphone market share, % (K2) |
|----|---------------------------------|--|---------------------------------|
| 1. | Samsung                         | 10   | 31,82                           |
| 2. | Apple                           | 9  | 22,85                           |
| 3. | Xiaomi                          | 9  | 7,88                            |
| 4. | Huawei                          | 10   | 7,87                            |

Note - compiled by the author

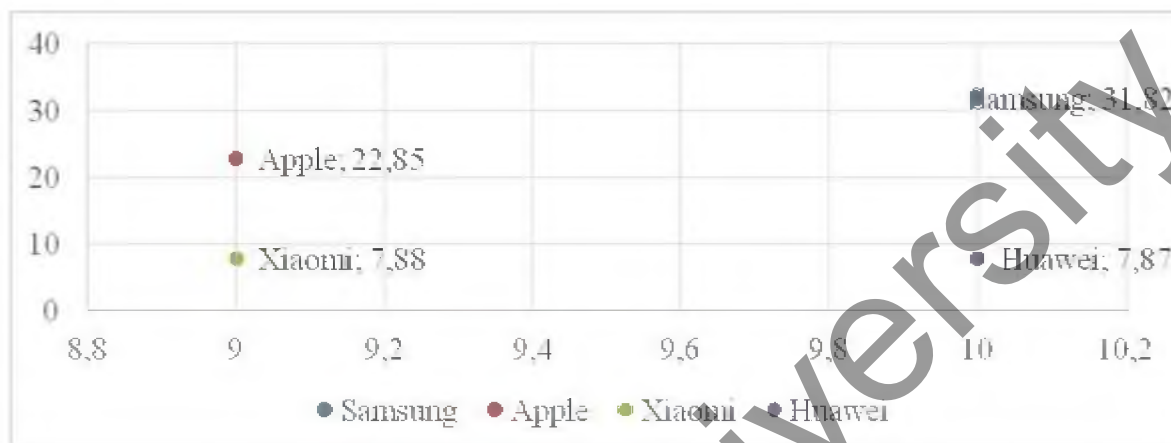


Figure 5. Map of Huawei's strategic competitor groups (part of the smartphone market/improving smartphone manufacturing technology)

Note - calculated by the author based on (Official website of Huawei in Ukraine; Rating of Smartphone manufacturers 2021)

So, the maps of strategic groups show that the largest competitor of Huawei in the Ukrainian smartphone market in terms of smartphone market share, consumer awareness, range of smartphones, brand updatability, effectiveness of marketing strategy, and improvement of smartphone manufacturing technologies is Samsung. Evaluation of Huawei's competitive advantages showed that the main competitors in the Ukrainian smartphone market are Samsung and Apple (Fig. 6).

Development of a marketing strategy Huawei in Ukraine through the use of technological advantages of 5G. The assessment was conducted in a circle of experts with some experience in the smartphone industry. Using strategic analysis tools, such as SWOT analysis, we can get a clear picture of the current state and future potential of the company. We will identify strengths, weaknesses, opportunities, and threats that affect Huawei.

*Strength.*

*Competitive pricing.* One of Huawei's greatest strengths is its competitive price. For several years, the smartphone market was dominated by luxury brands such as Samsung and Apple, and there were no cheaper alternatives to compete. However, the popularity of smartphones has soared over the past 10 years, which has led to a huge demand for inexpensive devices. Huawei is not the cheapest smartphone manufacturer on the market, but it is significantly cheaper than the luxury competitors we mentioned above.

*High level of smartphone quality.* Despite extremely competitive prices, Huawei smartphones are high-quality smartphones. Although their devices may not compete with brands like Samsung and Apple, but in terms of quality, they have a high level of quality compared to other cost-effective smartphone brands. Many of Huawei smartphones have a four-star rating (out of five possible) or higher on major retail sites such as Amazon, which is a true confirmation of their quality.

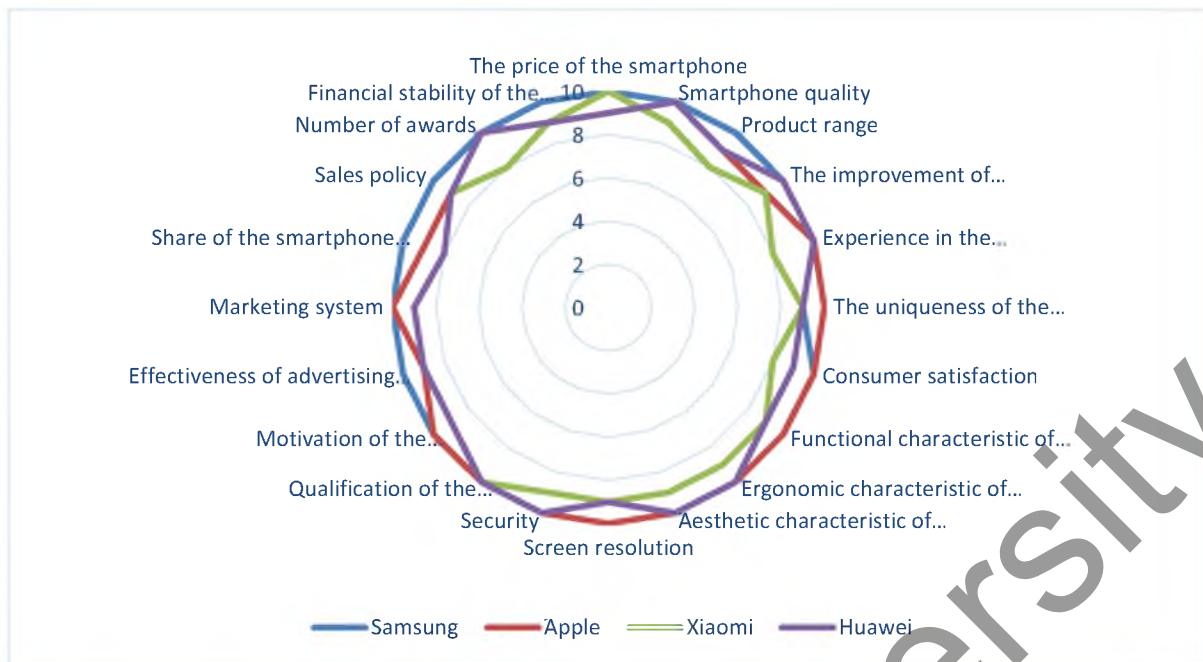


Figure 6. Polygon of competitive advantages of Huawei and its main competitors Samsung, Apple and Xiaomi in the smartphone market of Ukraine

Note - calculated by the author based on (Official website of Huawei in Ukraine)

#### *Weakness*

*Lack of capital.* Huawei has an insufficient level of capital. Compared to Apple, the world's largest company by market capitalization (almost a trillion dollars), Huawei share of capitalization is quite small. This means that the company must be extremely accurate in planning its financial flows. The insufficient level of capitalization does not allow for large-scale investment in marketing or branding, which would be an important next step for Huawei to become a top-class brand in the eyes of smartphone consumers.

*A weak brand positions.* Perhaps due to the insufficient level of capitalization, Huawei has a weak brand. While demand for budget smartphone manufacturers like Huawei, is really growing, they have long been considered clearly the worst choice. In the case of Huawei, this is not helped by the lack of marketing efforts. It should be recognized that in some countries, the Huawei brand is stronger than in others: for example, in the European Union, it is much stronger than in the United States. It's also worth mentioning that Huawei's weak brand is partly due to a prominent Western belief that Chinese products are inferior in some way; this conviction is especially noticeable in the United States.

#### *Opportunities*

*5G technology.* 5G is the next-generation mobile communication technology. As it turned out, Huawei quickly innovated, developing and releasing mobile modems that are compatible with 5G, even before the advent of major chipset manufacturers such as Intel. If Huawei implements a 5G marketing strategy, they can anchor themselves as a luxury brand, offering technologies that are not available even for top brands like Apple and Samsung. Huawei has even offered to sell its 5G modems to Apple, which could bring them huge profits. Naturally, this will be associated with all the compromises in the sale of technologies by the main competitor.

*India and US markets.* Often, weaknesses can be opportunities. We mentioned above that in the United States, Huawei has a poor perception of the Huawei brand. Huawei has little penetration in the US market. The same can be said for the Indian market. This means that both India and the US are untapped sources of income. If Huawei could develop a powerful strategy to enter these two markets, they could see a huge increase in overall revenue, given the number of potential smartphone consumers.

*Low-budget design of official stores.* The low-budget design of the official stores of the Huawei brand is one of the reasons that brands such as Samsung and Apple are in the first place among others. The luxury and comfort of official Samsung or Apple stores not only gives potential customers another opportunity to buy their smartphones, but also improves the perception of the brand on a subconscious level. By investing in the design of its stores, Huawei can simultaneously improve its marketing and sales performance.

*Threats.*

*High competition.* One of Huawei's biggest threats is the smartphone market itself. The telecommunications industry is fiercely competitive across the Board, and this is especially true for the smartphone market. Huawei not only faces competition from major brands such as Samsung and Apple (which have a significant level of capitalization), but also the threat of new players in the smartphone market in Ukraine. Even if top-level brands don't develop their own low-cost devices, a new competitor can enter the market at any time and take a portion of Huawei's market share with just one technological advance.

*Increase in labor and material costs.* A less serious threat to Huawei is rising labor and material costs. Smartphone manufacturing is relatively labor-intensive (although some parts of the process are automated), so the slow but steady growth in labor costs in China is gradually increasing Huawei's overhead. The same applies to materials that are becoming more expensive simply because of growing demand. All of these factors will force Huawei to raise smartphone prices or lower its profit margins.

Thanks to low-cost and high-quality products, Huawei has managed to enter one of the most difficult markets: the smartphone market. Moreover, Huawei has a significant opportunity to grow its business by entering and dominating new markets (including technological ones such as 5G, and geographical ones such as India or the USA, and Ukraine), and improving the perception of its brand, perhaps through the use of official representative offices.

Huawei needs to closely monitor competition in the smartphone market and provide plans to manage rising labor and material costs.

*SWOT analysis of Huawei company in Ukraine* (Table 7). SWOT analysis is a kind of form that does not contain a final one information for making management decisions, but it enables order the process of considering all the available information using one's own thoughts and assessments. In order to economically justify the implementation of Huawei's marketing promotion strategy in Ukraine, we will compile a matrix of the company's strengths and weaknesses in the Ukrainian smartphone market.

Thus, the study showed that Huawei has a significant opportunity to develop its business by entering new markets and dominating them (including technological ones, such as 5G, and geographical ones, such as Ukraine). Huawei quickly innovated, developing and releasing mobile modems that are compatible with 5G, even before the advent of major chipset manufacturers such as Intel. If Huawei implements a 5G marketing strategy, they can anchor themselves as a luxury brand, offering technologies that are not available even for top brands like Apple and Samsung.

The main advantage of Huawei's marketing strategy in the Ukrainian smartphone market is that it is aimed at creating the image of a premium brand, and therefore the company uses a multi-brand strategy — two brands for different market segments. Letters and numbers and explanatory words are also used within each brand. “Huawei + Honor's” multi-brand strategy is focused on meeting the needs of different segments of the smartphone market. Expanding the range of smartphones, Huawei has followed the path of Samsung, highlighting a series of products within each brand.

Table 7. Huawei SWOT analysis in Ukraine

|                             | <b>Positive influence</b>   | <b>Negative influence</b>  |
|-----------------------------|---|--|
|                             | <b>Strengths</b>  | <b>Weaknesses</b>  |
| <b>Internal environment</b> | <ol style="list-style-type: none"> <li>1. It belongs to the group of the largest smartphone manufacturers</li> <li>2. High quality smartphones</li> <li>3. Extensive experience in the smartphone market and good reputation among customers</li> <li>4. Upgrading and updating of equipment</li> <li>5. Availability of innovative features</li> <li>6. Competitive pricing policy;</li> <li>7. Providing warranty service;</li> <li>8. Own new developments and technical solutions (mobile modems and other technical solutions compatible with 5G)</li> </ol> | <ol style="list-style-type: none"> <li>1. The decline in the competitive position</li> <li>2. Weak brand due to lack of capital investment, weak brand policy</li> <li>3. Non-effective marketing strategy for entering new foreign markets</li> <li>4. Low market capitalization compared to other competitors</li> <li>5. Insufficient cost of capital investments</li> <li>6. No Ukrainian version of the official website</li> </ol> |

|  | <b>Opportunities</b>   | <b>Threats</b>   |
|--|--|--|
| <b>External environment</b>  | <ol style="list-style-type: none"> <li>1. Entering new international markets (USA, India, Europe (Ukraine)) and segments</li> <li>2. Introduction of 5G technology</li> <li>3. Expansion of production lines;</li> <li>4. Expanding the assortment policy of smartphones;</li> <li>5. Opening its own representative offices around the world, including in Ukraine, as a result of which Huawei will be able to simultaneously improve its marketing and sales indicators.</li> </ol> | <ol style="list-style-type: none"> <li>1. Long-term political instability in Ukraine;</li> <li>2. Sharp changes in exchange rates and devaluation of the national currency;</li> <li>3. A sharp decline in the creditworthiness of the consumer;</li> <li>4. Interest fluctuations on Bank loans;</li> <li>5. Crisis phenomena in the domestic and foreign policy of Ukraine, Europe and the World.</li> <li>6. High competition in the smartphone market</li> <li>7. Increase in labor and material costs. Smartphone manufacturing is relatively labor-intensive so the slow but steady growth in labor costs in China is gradually increasing Huawei's overhead.</li> </ol> |
| <i>Note - calculated by the author based on (Huawei SWOT Analysis; SWOT Analysis of Huawei: Tackling Competition in Smartphone Market)</i> |  |  |

Huawei company's weaknesses in Ukraine are: reduced competitive position; weak brand due to lack of capital investments; ineffective marketing strategy for entering new foreign markets; low market capitalization compared to other competitors; insufficient cost of capital investments; lack of the Ukrainian version of the official website. Research on marketing strategy in Ukraine has shown that Huawei has a significant opportunity to develop its business by entering and dominating new markets (including technological ones such as 5G and geographical ones such as Ukraine). Huawei quickly innovated, developing and releasing mobile modems that are compatible with 5G, even before the advent of major chipset manufacturers such as Intel. If Huawei implements a 5G marketing strategy, they can anchor themselves as a luxury brand, offering technologies that are not available even for top brands like Apple and Samsung.

We propose a marketing strategy for promoting Huawei in Ukraine by using the technological advantages of 5G. The methodological tools and practical recommendations for developing Huawei's marketing strategy can be used in the strategic planning of similar companies working in the field of telecommunications technologies. The fifth generation of mobile communications promises to be the Foundation of the 21st century economy. Only South Korea has achieved national success so far.

Now every chip manufacturer and gadget manufacturer is trying to gain dominance in the 5G sphere — a revolutionary achievement of cellular communication, promising to become the basis of the economy of the 21st century.

Let's briefly discuss the technological advantages of implementing a 5G marketing strategy. The “fifth generation” communication networks, the so-called 5G, together with big data analysis and the Internet of things (IoT) are designed to become one of the foundations of the digital economy, the main driving force of which should be artificial intelligence (AI). Over the past 40 years, four generations of mobile communication networks have changed. If the first-generation 1G cellular networks have long disappeared, then 2G, 3G and 4G networks still continue to be used. Moreover, some of the legacy 3G and 4G infrastructure will be integrated into the fifth-generation 5G mobile networks.

*Advantages of implementing a marketing strategy to promote Huawei 5G technologies in Ukraine.* As of 2019, the cost of passing growing traffic through the networks of Telecom operators is not covered by revenue from traditional services. Search for new services, so-called “killer application” of traditional telecommunications platforms usually does not give the expected results

Meanwhile, the main growth in traffic and revenue is not in the people's devices sector, but in the Internet of things devices sector, which is one of the basic goals of the 5G functionality.

At 2020 is the approximate start of the introduction of 5G technology in Ukraine. Thus, Ukraine can catch up with the most technologically advanced countries in the world, which also plan to start foil commercial use of the fifth generation this year. According to the state enterprise “Ukrainian state center of radio frequencies” in Ukraine, work is continuing on the release of 700 MHz radio frequency bands, identified by the EU countries as priority for the introduction of mobile networks of the fifth generation (5G).

Specialists of the state enterprise “Ukrainian state radio frequency center” take part in the preparation of documents for the organization of the European conference of posts and telecommunications, which are aimed at regulating the technical and regulatory aspects of the introduction of 5G technology in Europe (including Ukraine). Currently, certain measures are underway in Ukraine to release the 800 MHz and

700 MHz radio frequency bands from the REF (radio electronic facilities) of digital terrestrial television broadcasting (DTTB) for the further development of MFCN (mobile/fixed communication networks) in it.

In a separate roadmap for 5G, the EU countries identified the bands of 700 MHz, 3.6 GHz, and 26 GHz as priority for implementing 5G in Europe.

Based on the positive results of the completion of the procedures of the state enterprise “Ukrainian state radio frequency center” during the first half of 2020, the necessary materials will be prepared for the National Council to carry out further measures for transferring the Central TV station REF(DTTB) to the 470-694 MHz frequency band. The growth in the number of devices connected to the network is presented in Table 8.

Table 8. Growth in the number of devices connected to the network

| Types of devices | Connected devices (billion) |            | CAGR<br>2015-2021 |
|------------------|-----------------------------|------------|-------------------|
|                  | 15 billion                  | 28 billion |                   |
| Cellular         | 0,4                         | 1,5        | 27%               |
| Non-Cellular     | 4,2                         | 14,2       | 22%               |
| Laptops, tablets | 1,7                         | 1,8        | 1%                |
| Smartphones      | 7,1                         | 8,6        | 3%                |
| landline (phone) | 1,3                         | 1,4        | 0%                |

*Note - calculated by the author based on (Rating of Smartphone manufacturers 2021)*

*Impact of the 5G marketing strategy on the Ukrainian economy.* According to experts on information and communication technologies, the introduction of a marketing strategy, the introduction of the 5G network will lead to GDP growth of 2.5%. According to a number of international experts, the introduction of 5G technologies around the world will lead to an extraordinary economic development. With the latest technology, you can significantly automate and improve your workflow. The biggest benefit from 5G will be self-driving cars, since the signal delay at high speeds of the car itself will be eliminated. Also, the fifth generation will allow you to manage agricultural machinery in real time and monitor the soil and planted crops, unify infrastructure and create “smart” factories or even entire cities, improve communication networks, including transport. In medicine, 5G technology will allow doctors to perform remote operations using automated systems.

In General, 5G will contribute to the development of artificial intelligence, which will significantly improve and speed up the provision of services, as well as the production of goods around the world.

### **Discussion**

Methodological approaches to the formation of a 5G digital marketing strategy should be based on the application of strategic and competitive analysis, taking into account the technological component of its implementation in practice. 5G digital marketing strategy based on 5G technology is the basis for the introduction and dissemination of innovation.

### **Conclusion**

Huawei's digital marketing strategy should be based on countering threats, primarily fierce competition from its direct competitors and multinational corporations such as Apple, Samsung and Amazon, as well as Chinese companies Xiaomi, Vivo, OPPO.

The disadvantages of these companies (e.g. Apple) which include high selling price, incompatibility with other third party software, limited promotional marketing strategy must be countered by their rapid innovation strategies, including entering high-risk markets.

Ukraine, thanks to a good level of education, is becoming a major player in the global technological arena. The IT talent pool in Ukraine is approaching 200,000 software developers, tech start-ups are booming, investment is on the rise, and the number of companies partnering with Ukrainian software development service providers is on the rise of historically strong engineering skills to realize their potential. In a world consumed by technological innovation, at a time when information and data have become a vital resource, Ukraine can offer an invaluable asset — an unrivalled pool of IT professionals.

Research on marketing strategy in Ukraine has shown that Huawei has a significant opportunity to develop its business by entering and dominating new markets (including technological ones such as 5G and geographical ones such as Ukraine). Huawei is quickly innovated by developing and releasing mobile mo-

demands that are compatible with 5G, even before the advent of major chipset manufacturers such as Intel. We propose a marketing strategy to promote Huawei in Ukraine by using the technological advantages of 5G. 5G networks significantly expand the limited functionality of mobile networks of previous generations. The main functional features of 5G networks are the following: enhanced mobile broadband access eMBB (enhanced MBB); ultra-reliable communications with low latency URLLC (Ultra Low Latency Reliable Communication); massive inter-machine communications Massive IoT/IIoT, MMTS (massive Machine Type Communication). All the variety of services and capabilities of IMT2020 (5G) networks is built on the basis of these three generalized types of functionalities.

If Huawei implements a 5G marketing strategy, they can establish themselves as a luxury brand, offering technologies that are not available even for top brands like Apple and Samsung. This is because 40 operators from 20 countries have already launched 5g networks for commercial use, and 2/3 of these projects are implemented together with Huawei. Leading operators are actively working on creating pre-commercial 5g test zones and demonstrate real cases of using technologies of this communication standard. The implementation of Huawei's marketing strategy in Ukraine using the competitive technological advantages of 5G will increase the company's revenues by 20-30%, bring the Ukrainian economy to a high-level market, and subsequently make it possible to create a world-class national digital brand. Innovation and the creation of a unified system will accelerate the process of commercial launch of 5G.

As specific practical recommendations, we suggest that other companies that work in the field of communication technologies use methodological tools and practical recommendations for developing a marketing strategy for the implementation of the 5G network in the Ukrainian market in strategic planning. This is due to the fact that 5G networks significantly expand the limited functionality of mobile networks of previous generations. In fact, 5G plays the role of a platform for the development mode of new DevOps services and applications, when new features are created by developers (Development) in close coordination with the teams that are responsible for their implementation and operation. Implementation of the marketing strategy implementation of the 5G network will lead to GDP growth of 2.5%. The introduction of 5G technologies around the world will lead to an extraordinary development of the economy. With the latest technology, you can significantly automate and improve your workflow. In General, 5G will contribute to the development of artificial intelligence, which will significantly improve and speed up the provision of services, as well as the production of goods around the world.

## References

- Chukurna, O., Zamlynskyi, V. Modern trends in digital transformation of marketing & management: monograph. Košice: Vysoká škola bezpečnostného manažerstva v Košiciach. — 2023. — 604. <https://doi.org/10.5281/zenodo.7633350>
- Cifrovij marketing – model marketing XXI storicha: monografia / Edited by Oklander M. Odesa: Astroprint, 2017. — 327.
- Doyle, P. Marketing management and strategy: under editorship of Yu. N. Captures the. Petersburg, 544 p.
- Huawei SWOT Analysis [R/OL]. [Electronic resource]. — 2003. — Access mode: <https://notesmatic.com/2012/05/huawei-swot-analysis/>
- Karpishenko, O. O., Lginova, Y. E. Cifrovij marketing jak innovacijnyj instrument komunikacij [Electronic resource] / O. O. Karpishenko, Y. E. Lginova. — 2015. — Access mode: <http://essuir.sumdu.edu.ua>
- Kotler, F., Keller, K. Marketing Management. — Petersburg, 2018. — 816 p.
- Official website of Huawei in Ukraine [R/OL]. — [Electronic resource]. — Access mode: <https://www.huawei.com/ua/>
- Oklander, M. Analysis of technological innovations in digital marketing / M. Oklander, T. Oklander, I. Pedko, O. Yashkina, M. Chaikovska // Eastern-European Journal of Enterprise Technologies. — 2018. — 5/3 (95). — P. 80-91.
- Porter, M. Competitive Advantage: Creating and Sustaining Superior Performance. — N.Y.: The Free Press, 1985. — 274 p.
- Rating of smartphone manufacturers 2021 [R/OL]. — [Electronic resource]. — Access mode: <https://www.itrew.ru/sniartphone/reymg-proizvoditeley-smartfbnov-2021.html>
- Striy, L. Dynamics of development of cash-flows and trends in the market of telecommunications services in Ukraine / L. Striy, O. Chukurna, E. Tanashchuk // VUZF Review. VUZF University. — 2022. — 7 (2). — P. 97-106. DOI: <https://doi.org/10.38188/2534-9228.22.2.10>
- SWOT Analysis of Huawei: Tackling Competition in Smartphone Market [R/OL]. — [Electronic resource]. — Access mode: <https://pestleanalysis.com/swot-analysis-of-huawei/>
- Данько Т.П. Количественные методы анализа в маркетинге: моногр. [Текст] / Т.П. Данько, И.И. Skorobogatykh. — СПб.: Питер, 2005. — 384 с.

Ламбен Ж.Ж. Стратегический маркетинг. Европейская перспектива [Текст] / Ж.Ж. Ламбен. — М.: Наука, 2011. — 590 с.

МакДональд М. Стратегическое планирование в маркетинге / М. МакДональд. — СПб.: Питер, 272 с.

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### **5G-телекоммуникация саласындағы жаһандық компанияның цифрлық маркетингтік стратегиясы**

**Аңдатпа:**

**Мақсаты:** Зерттеудің мақсаты Huawei жаһандық компаниясының мысалында телекоммуникация саласындағы жетекші кәсіпорындардың 5G маркетингтік стратегиясының әдіснамалық негіздерін қалыптастыру. 5G маркетингтік стратегиясын қалыптастыру кезеңі ретінде бәсекелестік артықшылықтарды анықтау әдістемесін негіздеу. Зерттеу нысаны цифрландыру жағдайында телекоммуникация нарығындағы жаһандық компаниялардың маркетингтік қызметі.

**Әдісі:** Жүйелік-құрылымдық әдіс, диагностикалық, логикалық-салыстырмалы, салыстырмалы талдау, статистикалық талдау, факторлық талдау, топтау және жіктеу әдістері.

**Қорытынды:** Huawei компаниясының маркетингтік стратегиясын әзірлеудің теориялық және әдіснамалық негіздері жинақталған. Стандарттау және бейімдеу стратегиялары, оның ішінде дамыған елдердегі стратегиялық серіктестік негізінде 5G инновациялық смартфондары мен құрылғыларына, сондай-ақ құқықтық, технологиялық және саяси мәселелерге сәтті бейімделу мысалдары қарастырылды. Жүргізілген талдауда Украинада Huawei-ді ілгерілетудің 5G маркетингтік стратегиясын іске асырудың артықшылықтарын анықтауға, 5G форматындағы технологиялық шешімдерді анықтауға мүмкіндік болды. Зерттеу компанияның маркетингтік стратегиясын әзірлеу процесін зерттеу аясында компанияның брендін және жылжыту стратегиясын дамыту бойынша ұсыныстар жасауға мүмкіндік берді. Украинадағы Huawei қызметіне SWOT-талдау жүргізілді. Мақалада Huawei (Samsung, Apple) негізгі бәсекелестерінің маркетингтік стратегияларының салыстырмалы артықшылықтары талданды, сонымен қатар өсудің басым стратегиялық векторлары жасалды.

**Тұжырымдама:** Мақалада жаһандық компанияның маркетингтік стратегиясын әзірлеу процесін зерттеудің теориялық және әдіснамалық тәсілдері негізделген және жүйеленген. Huawei мысалында маркетингтік стратегияны қалыптастыру мен негіздеудің негізгі құралдары, әдістері мен технологиялары анықталды; компанияның Украинадағы телекоммуникациялық технологиялар саласындағы маркетингтік стратегиясын күшейту бойынша практикалық ұсыныстар әзірленді.

**Кілт сөздер:** маркетинг стратегиясы, Huawei басқару жүйесі, бренд, талдау, мүмкіндіктер, 5G, Украинадағы байланыс нарығы, тұрақты даму стратегиясы, бұлтты инженерияны басқару құрылымы, қоршаған ортаны қорғау әрекеттері.

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### **5G–Цифровая маркетинговая стратегия глобальной компании в сфере телекоммуникаций**

**Аннотация:**

**Цель:** Целью исследования является формирование методологических основ маркетинговой стратегии 5G ведущих предприятий сферы телекоммуникаций на примере глобальной компании Huawei. Обоснование методики определения конкурентных преимуществ как этапа формирования маркетинговой стратегии 5G. Объектом исследования является маркетинговая деятельность глобальных компаний на рынке телекоммуникаций в условиях цифровизации.

**Методы:** Системно-структурный метод, диагностический, логико-сравнительный, сравнительный анализ, статистический анализ, факторный анализ, методы группировки и классификации.

**Результаты:** Обобщены теоретические и методологические основы разработки маркетинговой стратегии компании Huawei. Рассмотрены стратегии стандартизации и адаптации, в том числе на инновационные смартфоны и устройства 5G на основе стратегического партнерства в развитых странах, а также примеры успешной адаптации к юридическим, технологическим и политическим вопросам. Проведенный анализ позволил выявить преимущества реализации 5G маркетинговой стратегии продвижения Huawei в Украине, определить технологические решения в формате 5G. Исследование позволило разработать предложения по развитию бренда компании и стратегии продвижения в рамках изучения процесса разработки маркетинговой стратегии компании. Проведен SWOT-анализ деятельности Huawei в Украине. В статье проанализированы сравнительные преимущества маркетинговых стратегий основных конкурентов Huawei (Samsung, Apple), а также разработаны приоритетные стратегические векторы роста.

**Выводы:** В статье обоснованы и систематизированы теоретико-методологические подходы к исследованию процесса разработки маркетинговой стратегии глобальной компании, определены основные средства, методы и технологии формирования и обоснования маркетинговой стратегии на примере Huawei; разработаны

практические рекомендации по усилению маркетинговой стратегии компании в сфере телекоммуникационных технологий в Украине.

**Ключевые слова:** маркетинговая стратегия, система управления Huawei, бренд, анализ, возможность, 5G, рынок связи в Украине, стратегия устойчивого развития, структура управления облачной инженерией, экологические усилия.

### References

- Chukurna, O., & Zamlinskyi, V. (2023) Modern trends in digital transformation of marketing & management: monograph. Košice: Vysoká škola bezpečnostného manažérstva v Košiciach, 604. <https://doi.org/10.5281/zenodo.7633350>
- Danko, T.P., & Skorobogatykh, I.I. (2005). Kolichestvennyye metody analiza v marketinge: monografiia [Quantitative methods of analysis in marketing: monograph]. Saint Petersburg: Piter, 384 [in Russian].
- Doyle, P. (2003). Marketing management and strategy. Yu. N. Capturesthe (Ed.). Petersburg, 544 p.
- Huawei SWOT Analysis [R/OL]. Retrieved from <https://notesmatic.com/20121/05/huawei-swot-analysis/>
- Karpishenko, O. O., & Lginova, Y. E. (2015). Cifrovyy marketing jak innovacijnyj instrument kommunikacij [Digital marketing as an innovative communication tool]. Retrieved from <http://essuir.sumdu.edu.ua> [in Ukraine].
- Kotler, F., & Keller, K. (2018). Marketing Management. Petersburg, 816 p.
- Lamben, Zh.Zh. (2011). Strategicheskii marketing. Evropeiskaia perspektiva [Strategic marketing. European perspective]. Moscow: Nauka, 590 [in Russian].
- McDonald, M. (2011). Strategicheskoe planirovanie v marketing [Strategic planning of marketing]. Petersburg [in Russian].
- Official website of Huawei in Ukraine [R/OL]. Retrieved from <https://www.huawei.com/ua/>
- Oklander, M. Odesa (Ed.). (2017). Cifrovyy marketing – model marketing XXI storicha: monografiia [Digital Marketing – The Marketing Model of the 21st Century: monograph: Astroprint, 327 [in Ukraine].
- Oklander, M., Oklander, T., Pedko, I., Yashkina, O., & Chaikovska, M. (2018). Analysis of technological innovations in digital marketing. *Eastern-European Journal of Enterprise Technologies*, 5/3 (95), 80-91.
- Porter, M. (1985). Competitive Advantage: Creating and Sustaining Superior Performance. N.Y.: The Free Press, 274 p.
- Rating of smartphone manufacturers 2021 [R/OL]. Retrieved from <https://www.itrew.ru/sniartphone/rejting-proizvoditeley-smartfbnov-2021.html>
- Striy, L., Chukurna, O., & Tanashchuk, E. (2022). Dynamics of development of cash-flows and trends in the market of telecommunications services in Ukraine. *VUZF Review. VUZF University*, 7 (2), 97-106. DOI: <https://doi.org/10.38188/2534-9228.22.2.10>
- SWOT Analysis of Huawei: Tackling Competition in Smartphone Market [R/OL]. Retrieved from <https://pestleanalysis.com/swot-analysis-of-huawei/>