Світове господарство і міжнародні економічні відносини Удк 330.3 DOI https://doi.org/10.5281/zenodo.13253506

Statistical Analysis of the Impact of Branding and Marketing on the Competitiveness of TNCs in the Global Clothing Market (based on the materials of Zara, Nike, Dior, Prada Companies)

Anna Flehantova

PhD, associate professor, Poltava University of Economics and Trade, Poltava ORCID: https://orcid.org/0000-0001-9158-8847 Web of Science: https://publons.com/researcher/2190834/anna-flehantova/

Yevheniia Kupriienko

student, specialty «International Business», Poltava University of Economics and Trade, Poltava

Прийнято: 11.06.2024 | Опубліковано: 29.06.2024

Abstract. Purpose. The main objective of this study is to analyze the impact of branding and marketing on the competitiveness of leading companies in the fashion and sports sectors (Nike, Zara, Dior, and Prada) from 2020 to 2023. The research aims to determine how advertising expenses, goodwill, and brand value influence these companies' ability to maintain and improve their competitive positions in the market. Methods. To conduct the study, regression analysis method was used. Regression analysis identified the relationships between advertising expenses, goodwill, and brand value on one hand, and competitiveness indicators on the other. Results. The article examines the impact of branding and marketing on the competitiveness of four leading companies in the fashion sectors: Nike, Zara, Dior,

and **Prada**. To assess the effect of branding on company competitiveness, three main factor indicators were used: advertising expenses, goodwill, and brand value. The competitiveness indicator was chosen as the performance measure. The analysis covers the period from 2020 to 2023, allowing for the consideration of both stable and crisis years for the fashion and sports industries. Conclusions. Based on regression analysis of individual companies in both the luxury and mass-market segments, we can draw several key conclusions. In the luxury segment, comparing Dior and Prada, Dior's indicators are significantly higher across the board. *Competitiveness coefficients for both brands do not follow a consistent trend, except* for a notable increase during 2021-2022, likely due to post-quarantine recovery. Both companies spend \$480-680 million on advertising, but Dior's brand value and goodwill are significantly higher than Prada's and have doubled over time. Goodwill inversely affects competitiveness, reflecting the luxury market's focus on brand uniqueness, exclusivity, and high customer loyalty over intangible assets. Brand value has the least impact on competitiveness, as luxury brands maintain strong market status and stability. In the mass-market segment, Nike generally outperforms Zara in most indicators. Competitiveness coefficients lack a clear trend but rose from 2020 to 2022, suggesting better pandemic adaptation. Nike's advertising expenses are significantly higher due to its focus on high-quality campaigns, and its brand value is twice that of Zara. Goodwill for both companies is within \$193-284 million, typical for the mass-market. Here, goodwill directly influences competitiveness, underscoring the importance of brand reputation in a highly competitive market. Brand value has the most significant impact on competitiveness, as strong brand recognition and trust are crucial for standing out and commanding higher prices in the mass-market segment.

Keywords: branding, marketing, statistical analysis, transnational corporations, regression analysis.

Статистичний аналіз впливу брендування та маркетингу на конкурентоспроможність ТНК на глобальному ринку одягу (на

матеріалах компаній Zara, Nike, Dior, Prada)

Флегантова Анна Леонідівна

к.е.н., доцент, Полтавський університет економіки і торгівлі, Полтава, ORCID: https://orcid.org/0000-0001-9158-8847 Web of Science: https://publons.com/researcher/2190834/anna-flehantova/

Купрієнко Євгенія Олександрівна

студентка спеціальності «Міжнародний бізнес», Полтавський університет економіки і торгівлі, Полтава

Анотація. Мета. Основна мета даного дослідження полягає в аналізі впливу брендування та маркетингу на конкурентоспроможність провідних компаній у сфері моди та спорту (Nike, Zara, Dior ma Prada) за період з 2020 по 2023 роки. Дослідження прагне виявити, яким чином витрати на рекламу, тудвіл та вартість бренду впливають на здатність цих компаній зберігати та покращувати свої конкурентні позиції на ринку. Методи. Для проведення дослідження було використано метод регресійного аналізу. Регресійний аналіз дозволив виявити залежності між витратами на рекламу, ґудвілом та вартістю бренду з одного боку, та показником конкурентоспроможності з іншого. Результати. У статті розглянуто вплив брендування та маркетингу на конкурентоспроможність чотирьох провідних компаній у сфері моди: Nike. Zara, Dior ma Prada. Для оцінки впливу брендування на конкурентоспроможність компаній було використано три основні факторні витрати на рекламу, тудвіл та вартість бренду. Як показники: результативний показник обрано показник конкурентоспроможності. Аналіз охоплює період з 2020 по 2023 роки, що дозволяє врахувати як стабільні, так і кризові роки для індустрії моди та спорту. Висновки. На основі регресійного аналізу окремих компаній як у сегменті люкс, так і в сегменті мас-маркет, можна зробити декілька ключових висновків. У сегменті люкс, порівнюючи

Dior і Prada, показники Dior значно вищі за всіма параметрами. Коефіцієнти конкурентоспроможності обох брендів не слідують постійній тенденції, за зростання у 2021-2022 роках, винятком значного ймовірно, через посткарантинне відновлення. Обидві компанії витрачають 480-680 мільйонів доларів на рекламу, але вартість бренду і гудвіл Dior значно вищі, ніж у Prada, подвоїлися період. Гудвіл за цей має зворотний i вплив на конкурентоспроможність, що відображає орієнтацію ринку люкс на унікальність бренду, ексклюзивність та високу лояльність клієнтів, а не на бренду має найменший нематеріальні активи. Вартість вплив на конкурентоспроможність, оскільки бренди люкс зберігають стійкий ринковий статус та стабільність. У масовому сегменті Nike загалом Zara більшістю показників. Коефіцієнти перевершує за конкурентоспроможності не мають чіткої тенденції, але зросли з 2020 по 2022 рік, що свідчить про кращу адаптацію до пандемії. Рекламні витрати Nike значно вищі через акцент на високоякісні кампанії, а вартість його бренду вдвічі перевищує Zara. Гудвіл обох компаній знаходиться в межах 193-284 мільйонів доларів, що типово для сегменту мас-маркет. Тут ґудвіл безпосередньо впливає на конкурентоспроможність, підкреслюючи важливість репутації бренду в умовах високої конкуренції. Вартість бренду має найбільший вплив на конкурентоспроможність, оскільки сильне визнання бренду та довіра до нього є вирішальними для виділення на ринку і можливості встановлювати вищі ціни в сегменті мас-маркет.

Ключові слова: брендинг, маркетинг, статистичний аналіз, транснаціональні корпорації, регресійний аналіз.

The problem statement in general terms and its connection to important scientific or practical tasks. Researching the competitiveness of global apparel manufacturers in the international market is exceptionally important in the current context of globalization and intensified competition. The fashion and apparel industry is undergoing dynamic transformations driven by changes in consumer

4

preferences and behavior, as well as new technological and environmental challenges. The success of companies like Dior, Prada, Zara, and Nike on the global stage demonstrates their ability to adapt to rapidly changing market conditions and implement innovative approaches in business strategy.

Analysis of Recent Research and Publications. The study of competition and competitiveness has been addressed by researchers such as K. Altreiter [1; 3], S. Arora-Johnson [4], N. Brunsson [4], R. Gasse [4], P. Ghemawat [7; 8], J. S. Gans [6], N. Gane [2], K. Grabner [1; 3], G. Wolfmaier [1; 3], J. Zisman [12], M. Kenny [12], K. Lagerstrom [4], M. E. Porter [5; 13], S. Puringer [1; 3], A. Rogoyanu [1; 3], D. J. Teece [11], A. Zuckerman [10], and J. A. Schumpeter [9].

Identification of Unresolved Aspects of the General Problem. However, their works either address only theoretical aspects of the topic or study competition across all markets without isolating factors that affect competition in specific markets. Therefore, we decided to examine the competitiveness of companies specifically in the apparel market and to explore particular aspects that distinguish luxury and mass-market segments.

Formulation of the Article's Objectives. The goal of the article is to analyze the impact of branding and marketing on the competitiveness of multinational corporations in the global apparel market.

Presentation of the Main Research Material. To investigate the impact of branding and marketing on the competitiveness of multinational corporations in the global apparel market, we chose regression analysis. This method allows us to determine the strength and nature of the relationship between a dependent variable and several independent variables that characterize the companies' branding and marketing activities. Using regression analysis will enable us to quantitatively assess the impact of each branding and marketing factor on the competitiveness of the companies studied, as well as to test the statistical significance of this impact.

We decided to perform regression analysis for each company separately and then compare the results within the selected segments. This approach will account for the specifics of each brand and reveal potential differences in the impact of

marketing tools across various price segments. For this analysis, we identified three indicators that we believe pertain to branding and marketing and have the greatest influence on competitiveness: advertising costs, brand value, and goodwill. We will start with the analysis of Dior (table 1). The performance measure we selected is the competitiveness coefficient of the studied companies.

Indicators	y/x	2020	2021	2022	2023
Coefficient of competitiveness	у	37,1	31,83	34,11	34,29
Advertising costs (mln USA dol.)	X ₁	580	620	650	680
Brand value (mln USA dol.)	X ₂	33600	39300	49600	616000
Goodwill (mln USA dol.)	X3	17682	27594	24925	24615

Table 1 – Indicators of Dior Company, 2020-2023

Source: compiled on the basis of data [14; 15; 22; 26; 27; 28; 29; 30].

The competitiveness indicator is quite high, reaching its maximum value in 2020, decreasing in 2021, but increasing again in 2022 and 2023. Advertising expenses have risen over the period; however, this has not led to an increase in the competitiveness indicator, suggesting that advertising expenses might not significantly impact competitiveness. We will be able to investigate this in more detail only after conducting regression analysis.

The brand value nearly doubled in 2023 compared to 2020, but this also did not positively affect the competitiveness coefficient, leading us to hypothesize that brand value may also have a limited impact on competitiveness.

Goodwill, which represents the difference between the market price and the book value of the company's assets, reached its lowest value in 2020 and its highest in 2021. This demonstrates a trend opposite to that of the competitiveness coefficient, suggesting that goodwill may have a significant impact on competitiveness, possibly with an inverse relationship.

By conducting regression analysis, we will be able to more accurately describe how each of these indicators affects competitiveness and verify whether any of our assumptions are correct.

Using the specified indicators, we conducted a regression analysis for Dior and obtained the following formula:

$y = 0,407x_1 - 0,129x_2 - 1,162x_3 + 1$ (1)

Based on the above formula, which is the result of the analysis, we can draw the following conclusions:

 goodwill has the most significant impact on Dior's competitiveness during the specified period, as we anticipated.

- brand value has the least influence on competitiveness.

 advertising expenses positively affect the competitiveness coefficient, meaning that as advertising expenses increase, so does the competitiveness coefficient.

- brand value negatively affects the competitiveness coefficient, implying that an increase in brand value leads to a decrease in competitiveness.

goodwill also negatively affects the competitiveness coefficient.
However, this decrease is more pronounced compared to the effect of brand value.

Using the same principle, the next step involved collecting the necessary indicators for Prada (table 2) and conducting regression analysis. To ensure comparability of results, the same independent variables – advertising expenses, brand value, and goodwill – were used. Given the differences in the geographic origin and history of the two brands, there is a possibility of certain differences in the extent to which marketing factors influence their competitiveness.

Table 2 – Indicators of Prada Company, 2020-2023

Indicators	y/x	2020	2021	2022	2023
Coefficient of competitiveness	У	-3,28	15,89	16,64	16,07
Advertising costs (mln USA dol.)	X 1	480	530	580	630
Brand value (mln USA dol.)	X ₂	12700	13100	12800	16300
Goodwill (mln USA dol.)	X3	625,84	581,39	550,69	564,17

Source: compiled on the basis of data [16; 17; 23; 26; 27; 28; 29; 30].

The competitiveness indicator for Prada reached a negative value in 2020 but

subsequently increased over the study period. Advertising expenses have gradually increased, as has the competitiveness coefficient, suggesting a possible direct proportionality between these indicators.

Brand value generally shows an upward trend, but it decreased in 2022. It is difficult to predict the exact relationship between brand value and the competitiveness coefficient, and this indicator may not have a significant impact on the company's competitiveness.

Goodwill has been decreasing from 2020 to 2023, but experienced a slight increase in 2023. This indicates an inverse relationship with the competitiveness coefficient, suggesting that goodwill may have a significant impact on Prada's competitiveness.

After conducting the regression analysis for Prada, we obtained the following formula that demonstrates the dependence of the company's competitiveness on each of the indicators:

$y = -3,397x_1 + 1,173x_2 - 3,217x_3 + 3,217$ (2)

Based on the results of the regression analysis, we can draw the following conclusions:

- advertising expenses have the most significant impact on competitiveness.

- brand value has the least influence, as we had anticipated.

 an increase in advertising expenses results in a decrease in the competitiveness coefficient, which is quite an unexpected result given our previous assumptions.

- an increase in brand value leads to an increase in the competitiveness indicator.

an increase in goodwill results in a decrease in the competitiveness
coefficient, demonstrating an inverse proportionality as we had predicted.

After conducting regression analysis for luxury segment companies Dior and Prada, we proceeded to study the impact of branding and marketing factors on the competitiveness of players in the mass-market segment. We started with Zara,

gathering the necessary data (table 3). By using the same independent variables – advertising expenses, brand value, and goodwill – we conducted regression analysis for Zara to identify the specific impact of marketing tools on the company's competitiveness in the «fast fashion» segment.

Indicators	y/x	2020	2021	2022	2023
Coefficient of competitiveness	У	6,89	10,81	10,59	11,41
Advertising costs (mln USA dol.)	x ₁	350	380	410	440
Brand value (mln USA dol.)	X ₂	11084	15745	18836	23048
Goodwill (mln USA dol.)	X3	207	201	202	193

Table 3 – Indicators of Zara Company, 2020-2023

Source: compiled on the basis of data [18; 19; 24; 26; 31; 32; 33; 34].

The competitiveness coefficient for Zara increases over the period, with a slight decrease in 2022. Advertising expenses have risen from 2020 to 2023, but no clear impact on competitiveness can be discerned. The brand value more than doubled in 2023 compared to 2020, but it is also challenging to trace a specific relationship between brand value and the competitiveness coefficient at this stage. Regression analysis will be needed to accurately determine the impact of this indicator on the company's competitiveness.

Goodwill does not exhibit a stable trend over the period, but an inverse proportionality with the competitiveness coefficient can be observed. While one might assume that an increase in goodwill will always result in a decrease in the competitiveness coefficient, as indicated by the data, the example of Prada suggests that reliable conclusions cannot be drawn solely from the data table analysis. Regression analysis will provide a clearer understanding of these relationships.

We conducted regression analysis for Zara and obtained the following formula:

$$y = -9,314x_1 + 11,5x_2 + 1,186x_3 - 1,186$$
 (3)

Based on the analysis of the obtained formula for Zara, we reached the following conclusions:

brand value has the greatest impact on the company's competitiveness, although its doubling did not result in a proportional increase in the competitiveness coefficient;

- goodwill has the least impact;

increasing advertising expenses results in decreased competitiveness;

increasing brand value leads to an increase in the competitiveness coefficient;

increasing goodwill also results in an increase in the competitiveness coefficient.

The next step is to conduct regression analysis for another mass-market giant, Nike (table 4). Comparing the results for Zara and Nike, as well as contrasting them with the luxury segment, will provide comprehensive insights into the role of branding, advertising, and intangible assets in ensuring competitiveness across different price categories in the apparel market.

Indicators	y/x	2020	2021	2022	2023
Coefficient of competitiveness	У	11,44	12,21	13,52	10,65
Advertising costs (mln USA dol.)	X 1	1340	1400	1460	1520
Brand value (mln USA dol.)	X ₂	34800	33600	30400	47600
Goodwill (mln USA dol.)	X3	223	242	284	281

Table 4 – Indicators of Nike Company, 2020-2023

Source: compiled on the basis of data [20; 21; 25; 26; 35; 36; 37; 38].

The competitiveness coefficient for Nike increased from 2020 to 2022 but significantly decreased in 2023 due to reduced profits and product profitability. Advertising expenses have risen throughout the period, but this does not show a clear impact on competitiveness.

Brand value decreased from 2020 to 2023 but experienced a significant increase in 2023. This indicator exhibits an inverse relationship with the competitiveness coefficient, although it is somewhat surprising that the competitiveness coefficient decreases as brand value increases. Among all the

indicators, brand value is likely to have the greatest impact on competitiveness.

Goodwill, like the competitiveness coefficient, increased from 2020 to 2022 but decreased slightly in 2023, although not significantly compared to the 2022 figure. It can be predicted that there is a direct relationship between the competitiveness coefficient and goodwill.

$y = 0,428x_1 - 1,135x_2 + 0,149x_3 + 0,566$ (4)

Based on the regression analysis results for Nike and Zara, we can draw the following conclusions:

brand value has the greatest impact on the competitiveness coefficient,
which aligns with our expectations based on the data;

– goodwill has the least impact;

increasing advertising expenses results in an increase in competitiveness;

increasing brand value decreases competitiveness, demonstrating an inverse relationship as anticipated;

increasing goodwill leads to an increase in competitiveness, also supporting our assumptions.

Conclusions. So, we have drawn conclusions based on the results of the regression analysis for each individual company, and now we have to compare these results within the luxury and mass market segments. Comparing the indicators selected for the analysis of luxury segment companies: Dior and Prada, it can be noted that almost all indicators of Dior are significantly higher than the same indicators of Prada. The coefficients of competitiveness of companies throughout the selected period do not show a certain similar trend that would characterize the luxury segment. Only in the period of 2021-2022, it is possible to note an increase in the competitiveness ratio of both companies, which may indicate a post-quarantine recovery. Advertising expenses of both companies are in the range of 480-680 million dollars. USA. Dior's brand value is significantly higher than Prada's and, moreover, has doubled over the period. Goodwill is also significantly higher at Dior. According to the results of the regression analysis, it is possible to note the

inverse dependence of the «goodwill» indicator on the competitiveness coefficient of both companies, which can be explained by the uniqueness of the brand, exclusivity of products, high customer loyalty and the specificity of the target audience, for which the brand, exclusivity and high quality play a greater role than intangible assets. Also, in the luxury segment, we observe the smallest impact on the competitiveness of the brand value among the selected indicators. This is also a completely logical characteristic of the luxury segment, since luxury brands usually all have a certain status in the market, high stability and brand strength, and therefore slight fluctuations in the value of the brand will not affect the attitude of consumers, since for them, as already noted, other factors play a greater role factors. Also, luxury segment brands are usually in different price categories, so a change in brand value will not have a big impact on competitiveness.

Among the indicators of the mass-market companies Zara and Nike, the latter has higher values for almost all indicators. Similar to the situation with luxury segment companies, no clear trend in the competitiveness coefficients can be observed in the mass-market segment. However, from 2020 to 2022, the competitiveness coefficient of the companies increased, suggesting that companies in this segment adapted better to the pandemic. Nike's advertising expenses are significantly higher than Zara's, as the company has always been known for its highquality and successful advertising campaigns and was one of the first to launch them, which continues to be a distinctive feature of the company. Nike's brand value is twice as high as Zara's, and the trend for this indicator varies between the two companies. On the other hand, while the "goodwill" indicator is higher for Nike, it falls within the range of \$193-284 million for both companies, which may characterize the mass-market segment. The regression analysis determined that goodwill directly affects the competitiveness coefficient for mass-market companies. This can be explained by the significance of the brand and reputation in the segment, where price and accessibility play a crucial role in consumer purchasing decisions, a large number of competitors, and a broad consumer base where goodwill can provide a significant advantage, along with effective marketing and promotion.

Additionally, among all selected indicators, brand value has the most significant impact on the competitiveness of mass-market companies. Brand value is crucial for the mass-market segment due to the high competition present, as a strong and recognizable brand allows companies to stand out. This is also related to consumer purchasing decisions based on brand trust and overall brand recognition, as well as the ability to set higher prices for products due to higher brand value.

References:

1. Stephan Puehringer, Georg Wolfmayr, Carina Altreiter, Claudius Gräbner, Ana Rogojanu. (2020). Theorizing Competition. An Interdisciplinary Approach to the Genesis of a Contested Concept. SPACE Working Paper Series. 17 p.

2. Nicholas Gane. (2019). Competition: A Critical History of a Concept. Sage Journals. 21 p.

3. Stephan Puehringer, Georg Wolfmayr, Carina Altreiter, Claudius Gräbner, Ana Rogojanu. (2021). Theorizing Competition. An Interdisciplinary Approach to the Genesis of a Contested Concept. SPACE Working Paper Series. 27 p.

4. Stefan Arora-Jonsson, Nils Brunsson, Raimund Hasse, Katarina Lagerström. (2021). Competition: What It Is and Why It Happens. Oxford University Press. 258 p.

5. Porter, M. E. (2020). Competitive strategy: Techniques for analyzing industries and competitors. New York: Simon & Schuster. 432 p.

6. Gans, J. S. (2022). The dynamics of competition: A new framework for understanding and managing competitive markets. Oxford University Press, USA. 264 p.

7. Ghemawat, P. (2019). Strategy and the business landscape. Harvard Business Review Press. 240 p.

8. Ghemawat, P. (2022). Zero-sum competition: The roots of rivalry and cooperation. New York: Oxford University Press. 304 p.

9. Schumpeter, J. A. (2019). Capitalism, socialism, and democracy. Routledge. 464 p.

10. Zuckerman, A. (2021). The evolution of competition: Firms, industries,

.

and nations. Oxford University Press. 288 p.

11. Teece, D. J. (2022). Dynamic capabilities and strategic management. Routledge. 288 p.

12. Kenney, M., & Zysman, J. (2021). The rise of the platform economy: A new era of innovation and competition. Oxford University Press, USA. 320 p.

13. Porter, M. E. (1985). Competitive advantage: Creating and sustaining superior performance. New York: Free Press. 592 p.

14. DiorIncomeStatement.URL:https://www.investing.com/equities/christian-dior-income-statement

15. PradaIncomeStatement.URL:https://www.investing.com/equities/prada-spa-income-statement

16. Zara Income Statement. URL: <u>https://www.investing.com/equities/zara-</u> <u>investmen-income-statement</u>

17. Nike Income Statement. URL: <u>https://www.investing.com/equities/nike-</u> income-statement

18. Dior Balance Sheet. URL: <u>https://www.investing.com/equities/christian-</u> <u>dior-balance-sheet</u>

19. Prada Balance Sheet. URL: <u>https://www.investing.com/equities/prada-</u> <u>spa-balance-sheet</u>

20. Zara Balance Sheet. URL: <u>https://www.investing.com/equities/zara-</u> investmen-balance-sheet

21. Nike Balance Sheet. URL: <u>https://www.investing.com/equities/nike-balance-sheet</u>

22. Офіційний сайт Dior. URL: <u>https://www.dior.com</u>

23. Офіційний сайт Prada. URL: <u>https://www.prada.com</u>

24. Офіційний сайт Zara. URL: <u>https://www.zara.com</u>

25. Офіційний сайт Nike. URL: <u>https://www.nike.com</u>

26. Statista.Advertising& Marketing.URL:https://www.statista.com/markets/479/advertising-marketing/

27. Brand Finance. Global ranking. Luxury & premium 50 2020. URL:

https://brandirectory.com/rankings/luxury-and-premium/2020

28. Brand Finance. Global ranking. Luxury & premium 50 2021. URL: <u>https://brandirectory.com/rankings/luxury-and-premium/2021</u>

29. Brand Finance. Global ranking. Luxury & premium 50 2022. URL: https://brandirectory.com/rankings/luxury-and-premium/2022

30. Brand Finance. Global ranking. Luxury & premium 50 2023. URL: <u>https://brandirectory.com/rankings/luxury-and-premium</u>

31. INDITEX.AnnualReport2020.URL:https://static.inditex.com/annual_report_2020/assets/pdf/pdfseng/BLOQUES_ING/ANUAL%20REPORT_ING_12_web.pdf

32. INDITEX. Annual Report 2021. URL: https://static.inditex.com/annual_report_2021/en/documents/annual_report_2021.p df

34. INDITEX. Annual Report 2023. URL: https://static.inditex.com/annual_report_2023/en/Inditex_Group_Annual_Accounts _2023.pdf

35. Forbes. The world's most valuable brands. URL: <u>https://www.forbes.com/the-worlds-most-valuable-brands</u>

36. Brand Finance. Global ranking. Global 500 2021. URL: https://brandirectory.com/rankings/global/2021

37. Brand Finance. Global ranking. Global 500 2022. URL: <u>https://brandirectory.com/rankings/global/2022</u>

38. Brand Finance. Global ranking. Global 500 2023. URL: <u>https://brandirectory.com/rankings/global/2023</u>