

# Activation of the Groundswell in the Segment of Bicycle Manufacturers

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**Abstract:** In addition to the massive home office, the COVID-19 pandemic has brought an enormous increase in the popularity of outdoor activities. This was also reflected in the very high demand for bicycles and accessories for cyclists, which led to the groundswell effect and an increase in fan interaction and engagement within the social media profiles of bicycle manufacturers. The research design in the present paper contains a consistent and synergistically balanced share of qualitative and quantitative methods. Within the theoretical background, methods of analysis of sources from leading authors are used, especially from articles based on leading scientific journals and proceedings. The practical part uses quantitative methods in the form of data collection through the tools Zoomsphere and Socialblade. The selection of assessed business entities consisted of a ranking of profitability and evaluation according to the leading portal designed for the segment of cyclists. The findings point to the content structure of profiles on social media in the segment of bicycle manufacturers. They also point to the content structure of the best contributions on these social media and to the recommendations in the form of categories for the bicycle manufacturers segment. The authors also define the best types of posts for future content in that segment. Domestic and global businesses in this segment require knowledge of the laws on social media in the form of user behavior and the groundswell effect. The limits of the findings are in the selection of business entities, which were selected on the basis of profitability and evaluation according to the leading cycling portal, also within the limits of social media analysis and management tools. Despite the above facts, the added value exceeds the limits within the author's contribution. The originality of the paper is based mainly on the fact that the selected segment from the point of view of the groundswell effect is unexplored. It is important to examine this segment, especially due to the high demand for products in this segment and the relentless interest in the form of user interactions.

**Keywords:** Groundswell, social media, bicycle manufacturer segment, content strategy on social media

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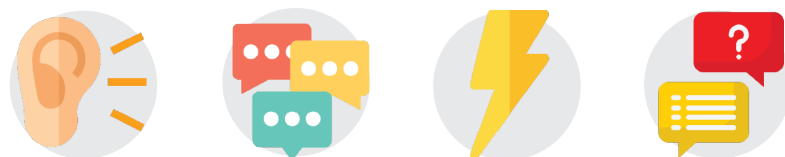
## 1. Introduction

The development of digital technologies has brought a significant boom in the field of social media. With a growing user base, the digital environment has gradually been updated. Users have also switched from traditional communication to communication via social media. Since then, we can talk about hybrid communication through platforms and various communication tools. Likewise, all user features have moved from the physical environment to the digital environment. This is also associated with the behavior resulting from the groundswell. (Sahaym et al., 2021) Social media have provided the opportunity to measure and evaluate the success of communication. Competitors keep their strategies exclusively in their mystery. For this reason, it is up to the scientific environment to bring functional models applicable across the spectrum as well as to specific segments. Businesses on behalf of marketing managers should regularly recognize the benefits of social media.

## 2. Literature review

### 2.1 Groundswell

The groundswell is the fundamental paradigm, which in many cases causes an increase or decrease in sales, or even interference in the scope of business entities. Following the groundswell, we can talk according to Li and Bernoff about the involuntary respectively the will-less movement of people on social media and their involvement in various situations in the digital environment. Users connect, take on their own experience and gain what they need in the form of information, support, ideas and products, and the bargaining power is characterized by each other. (Li, Bernoff, 2008) From the author's work of leading authors Li and Bernoff, we can deduce that the groundswell deserves attention. This is because it can have a positive and negative impact on the business entity. According to the authors, there are several techniques for managing the strategic and effective use of social media.



## Listening - Talking - Energizing - Supporting

**Figure 1:** 4 characteristic tactics

**Source:** own processing according to Li and Bernoff

The description of the individual techniques according to Figure 1 has parts such as listening, which is characteristic of listening to customers and their needs. Ultimately, it is necessary to know the requirements of the market through the analysis of the environment and customer requirements, as well as the analysis of social media and their use. Narration has a defined main feature in the creative way of communicating with the groundswell. According to the mentioned strategy, business entities have to transform their involvement mainly into monitoring and managing social media in order to reveal user experience with the product and attitude towards the brand. Energizing as a strategy results from following satisfied customers, which if transformed into an online community that can connect customers with the brand and provide a wealth of reviews. The support covers corporate social software that is used by employees of business entities to create internal affiliation with the brand, which ultimately also affects the external environment. (Li, Bernoff, 2008) From the perspective of businesses as Sahaym says, marketing managers should also think about constantly innovating and proactive communication with users, because new ideas can also transfer greater efficiency and creative performance. (Sahaym et al., 2021) The author argues that it is important to recognize and influence the groundswell in favor of the business environment. It is important to monitor not only the company's own communication channels, but also the discussions and events that take place beyond its own social media. Only by examining the interaction and reacting in a timely manner is it possible to keep the phenomenon of the groundswell within the marginal degree of prevention of the negative impact. Developing strategies for applying the groundswell is for a number of segments. (Madleňák, 2020) After examining the available resources, we talk about the deficit composition of strategies and the overall examination in the connection of the groundswell with the segment of bicycle manufacturers.

### 2.2 Groundswell investigation

On the other hand, it is social media that is currently being used more widely. Jurišová assesses the wide range of possible measuring tools, as one of the best tools is the Zoomsphere measuring tool, which is also suitable for working with the groundswell. (Jurišová, 2021) The analysis of available resources revealed the need to use measurement tools that can identify various changes as well as interactions that can lead marketing managers through the analysis to a possible beginning of the groundswell. Kusá and Piatrov found findings in the findings that generations have a common factor across the spectrum if they reach a certain level of digital literacy and a state where it is desired to visit social media as a user. That is why we are seeing different generations creating the groundswell phenomenon. (Kusá & Piatrov, 2020) The authors Kollárová and Koliščáková introduce a change in behavior during the crown of the crisis. In their work, they state that the changes are visible not only in the field of shopping behavior, but also in various areas of the digital environment. (Kollárová, Koliščáková, 2021) According to Klementis, social media trends indicate a rapid shift of attention from different types of posts and different social media to other types and social media. (Klementis, 2020) The analyzed source shows that the time spent on social media is progressing slowly over the years, but the indicator that is changing faster is the shift from platform to platform and the time spent on individual platforms. As stated by Fedorko and Ferienčík (2017), it is ideal to continuously measure and set up the contributions that have the greatest involvement in any segment. The author Schultz points out the further need for research, especially from the point of view of various segments. Contributions aimed at the whole width of the target group have the best commitment. On the other hand, the day does not affect the user's commitment to the post. The number of interactions is thus focused mainly on the attractiveness of the contribution for target groups.

### 2.3 Bicycle industry and social media

On the other hand, the central segment of the present topic is bicycle manufacturers. As the author Hoor has pointed out at the present time, the bicycle is becoming essential in planning, political events and the academic sector. In addition, according to the author, the bicycle is increasingly becoming a key object in popular urban

culture. We observe a connection between commercialization, specialization and standardization with a focus on design, aesthetics, lifestyle and consumption. This is also the case with the corona crisis, which brings with it characteristic changes in behavior and the associated preferences and popularization trends that result from the use of bicycles. (Hoor, 2020) People all over the world have directed their time on their bikes. At the same time, driving is aimed at inducing fun, enjoyment and, in particular, alleviating fatigue during long periods of social distance. An analysis of available resources has shown that the popularity of bicycle use is high and growing.

Interest has exceeded expectations and demand for bicycles, manufacturing companies are coming under pressure and, on the other hand, people are introducing a new traffic habit into their lives. The campaigns suggest that bicycles are an alternative and at the same time a reality of traveling to work, which seems to be the current trend with growth prediction. The authors also confirm that the covid-19 pandemic has caused a phenomenon in the sports sector. (Budi et al., 2021) Evidence of the functionality of increased user representation, interactivity, and visibility of response directly contribute to increased conformal behavior is confirmed by Fortin and Dholakia (2005). Experts Heide and D'Angelo (2005) state in the published material that it is the visual type of content that is associated with a more positive reception among respondents. The question arises as to whether this finding is also applicable to the bicycle industry segment. At present, we can talk about the importance of researching business entities engaged in the production of bicycles, mainly because of it.

### 3. Methodology

Research design includes qualitative and quantitative scientific methods. In the theoretical basis, these are mainly qualitative methods of analysis, induction, deduction and comparison. In the area of qualitative components, it is mainly the content analysis of texts that come from leading authors in the areas with the key terms "groundswell", "social media", "social media and bicycle manufacturers". The professional texts that are used are mainly from scientific journals with a high quality rating. To the same extent, they are conference proceedings and at the end literary sources and online processing of materials from scientific authors and leading authors from practice. The aim of the paper is to show the state of social media of cycling manufacturers on the basis of theoretical background in cooperation with tools designed for social media analysis, to reveal functional patterns of communication with the groundswell and to point out the possible impact of the corona crisis. Research questions and hypotheses were established on the basis of theoretical background and research topic.

#### 3.1.1 Research topic:

Social media and groundswell in the segment of bicycle manufacturers.

#### 3.1.2 Research questions:

RQ1: What type of contributions and to what extent do the most important bicycle brands publish?  
RQ2: What type of posts published by the most important bicycle brands most encourage fans to be active?  
RQ3: How intensely do the most important bicycle brands interact with the audience?  
RQ4: Has the increased demand for bicycles affected the number of fans to the most important bicycle brands on Facebook?

As part of the research, we analyzed the Facebook accounts of the world's leading bicycle manufacturers. We created the sample on the basis of the ranking of the cycling magazine Bikes Reviewed published in the article *The Best Bike Brands For 2022 - The Top 60 Bike Manufacturers* (2021). We limited the sample to the manufacturers listed in the first five rungs of the ranking. We assume that certain patterns of behavior and community values work in every industry. The sample consisted of the following 5 brands: *Cannondale*, *Diamondback*, *Giant*, *Specialized*, *Trek*. (Bikes Reviewed, 2021)

**Table 1:** Top 5 brands of bicycle manufacturers according to the leading Bikes Reviewed portal and their turnover according to zoominfo.com and zippia.com

No.	Brand	Revenue
1	Cannondale	\$ 285.6 million
2	Diamondback	\$ 2.813 billion

No.	Brand	Revenue
3	Giant	\$ 1.9 billion
4	Specialized	\$ 434 million
5	Trek	\$ 900.0 million

The mentioned ranking is a subjective list of editors of the Bikes Reviewed portal. We chose this ranking because it is focused on typical users and takes into account their needs. In this context, it is also necessary to perceive certain differences in the popularity of brands, which are sometimes quite significant. Ultimately, it is the user experience and the bottom-up influence that, in many cases, uses user and media reviews in the decision-making process.

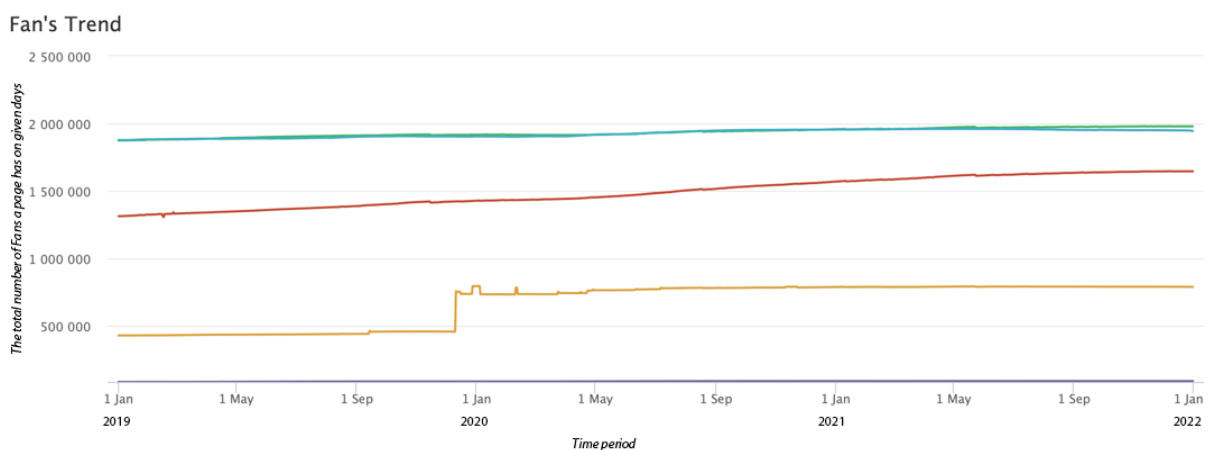
The work procedure we chose during the practical part was as follows. Using Zoomsphere analysis software, we performed three analyzes, each for a different time period. First of all, we analyzed the development of the membership base in the years 2019-2021. We focused mainly on the period of the corona crisis due to the possible specifics, which we present in the theoretical part of the paper. Subsequently, we performed a qualitative content analysis and a quantitative analysis of the interaction of contributions published in 2021. Specifically, we monitored the rough typology of published contributions, the rate of engagement for each contribution, as well as the times and days of publication of contributions. Following this analysis, we performed a qualitative content analysis of the 20 posts with the highest interaction rates. As with sample design, we wanted to stay efficient and prefer to examine a smaller sample, but more in depth. A deeper examination of the most reacted contributions will provide inspiring insights on how to properly manage social media accounts in the context of the groundswell - at least in the cycling segment - which is the main aim of our contribution.

#### 4. Results

The following section is devoted to the results of the researched factors. The analyzes are elaborated in three sections and summaries. Specifically, it is an analysis of the growth of the fan base, the structure of contributions and an in-depth analysis of the most engaging contributions.

##### 4.1 Growth of the fan base

The analysis of the number of fans in 2021 did not reveal any significant deviations from the long - term trend - see. Chart 1. The only obvious anomaly is the jump in the number of Cannondale fans in December 2021, which, however, can have nothing to do with the COVID-19 pandemic, which began until March 2020. The most likely explanation for such a jump is the merging of several corporate accounts.



Graph 1: The growth trend of the fan base

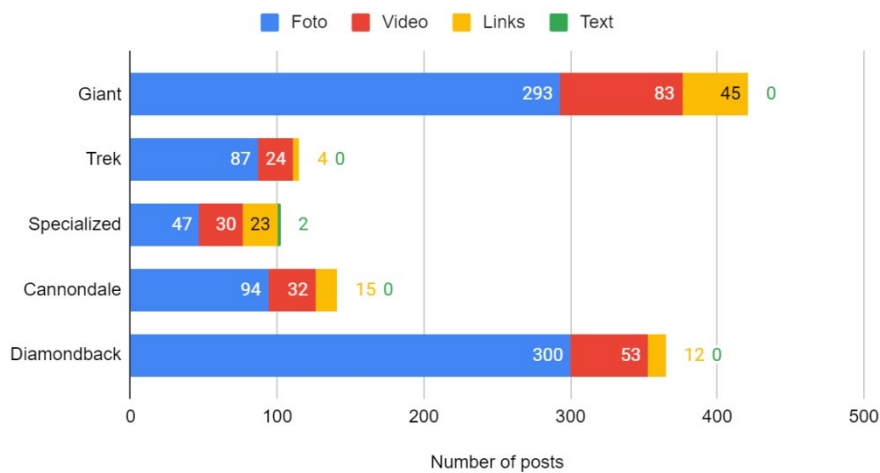
Table 2: Number of Fans

Brand	Number of fans	Share
Specialized	1 978 797	30,68 %
Giant	1 944 810	30,16 %
Trek	1 645 700	25,52 %
Cannondale	788 990	12,23 %
Diamondback	90 557	1,40 %
<b>Total</b>	<b>6 448 854</b>	<b>100,00 %</b>

#### 4.2 Contribution structure

Quantitative content analysis of the contributions showed that in terms of quantity, there are two approaches to publishing. The Giant and Diamondback brands published on a daily basis, the Trek, Specialized and Cannondale brands published less frequently, at the level of 2-3 posts per week. A summary of their annual activity is shown in Chart 2. The structure of the contributions is very similar. With the exception of the Specialized account, we see a strong dominance of photo posts. They make up at least two thirds (67%) of the contributions. Approximately every fifth to every fourth contribution (23%) is in the form of a video. Sharing links to various articles is relatively rare; it is at the level of max. 11%. We see a violation of this formula in the Specialized brand, which uses significantly more video - up to 29% of the content. Photos make up almost half (46%) of posts. It also gives significant space to link sharing, accounting for up to 23%. In this account, we even noticed the publication of two purely text links that other brands did not publish in 2021.

Post structure by formats



Graph 2: structure of contributions by formats

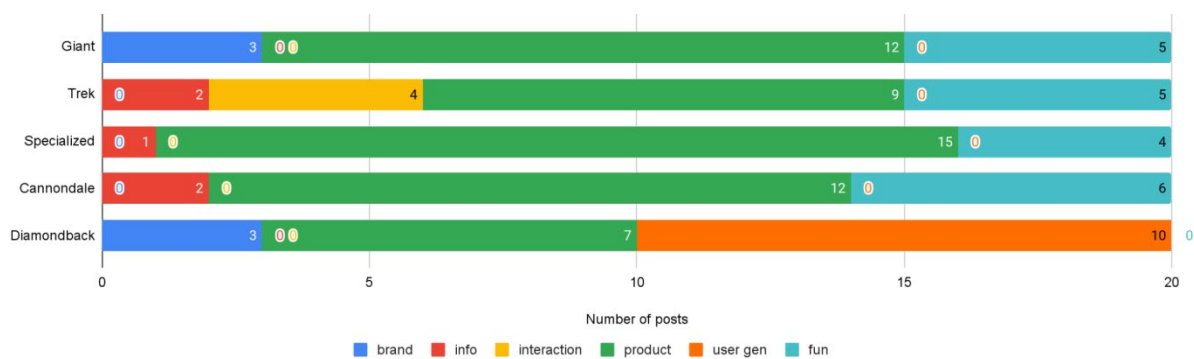
#### 4.3 In-depth analysis of the most engaging contributions

As part of the qualitative content analysis, we focused on the 20 most engaging contributions of individual brands. The sample therefore consisted of 100 contributions. We first categorized each post and then assigned tags to describe it in more detail. A detailed analysis of the content composition (Chart 3) immediately refutes the hypothesis that lifestyle content is preferred over products. It is quite obvious that successful bicycle brands focus primarily on the product, using other types of content only as a complement. The reason is obvious, product contributions are a guarantee of higher engagement. As can be seen in Table 1, which summarizes the results of a qualitative analysis of the 100 most engaging contributions, product contributions have a much higher level of exposure than other types of contributions. Although the product-centric strategy works reliably, we may notice one exception. It is the Diamondback brand, which uses a different strategy and tries to actively work with user-generated content; we discuss this in more detail below. Tags explained the unexpected popularity of the products among the fans. Almost two thirds (61%) of product contributions were tagged as *catchy-photo* (or *catchy-video*). In most cases, these were studio shots (9), although pictures of bicycles in the middle of crushing natural scenery (mountains: 7, forest: 7) and photos from the field during the event (5) were also popular. It was in these shots that formed the core of the production that the style of the brands was most

clearly reflected. The bicycle manufacturer Specialized, for example, tended to a higher degree of stylization in the studio. Cannondale works more with photos of models in action. Diamondback and Giant prefer shots from nature. The trek seems to be trying to make the most of the minimum: it uses the urban environment, even the garden. Of course, we have no ambition to generalize. We acknowledge that analyzing a larger number of shots could change the proportion of environments used by individual brands. What we are trying to point out is that this type of contribution gives space in which the brand can show its individuality and values. Attractive shots were almost always supplemented by text pointing to some extra feature of the photographed bicycle, or its component. Often, for example, it was a frame that was associated with various superlatives. There have also been limited editions of a particular model or shots of bicycles adapted for a particular racer.

We noticed that posts from the entertainment category were also very popular, although this expression should be perceived with some reserve. In the analysis of the contributions, we realized that the cycling segment is not fun at all, on the contrary - it is technically oriented and highly competitive. The *Entertainment category* referred to posts that tried to deviate from this template and lighten the atmosphere. These were most often stories of members of the cycling community (11): athletes and enthusiasts and lifestyle contributions (5), e.g. New Year welcome, competition, etc.

Type-structure of top 20 most engaging posts



Graph 3: Content structure of contributions

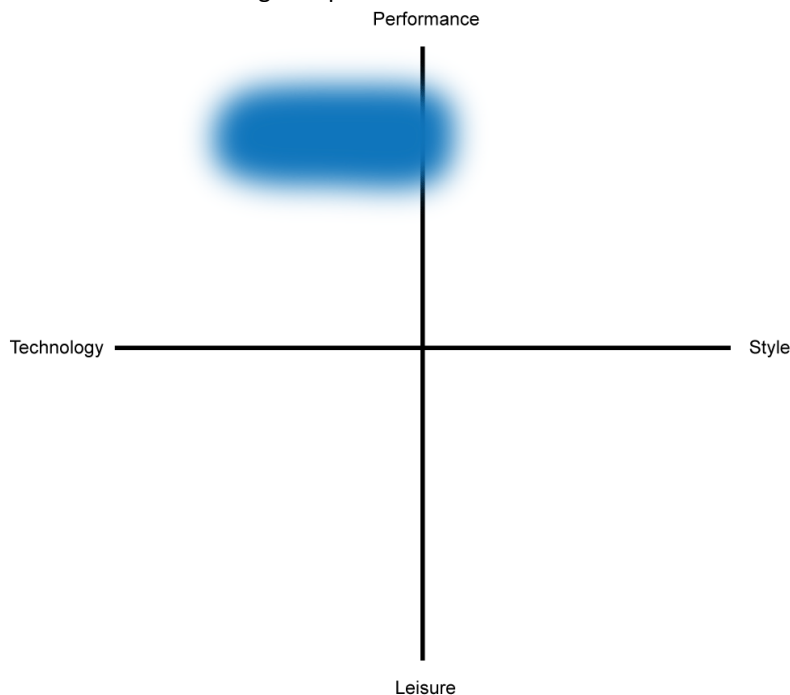
The following table compares the engagement of content that includes product and non-product posts.

Table 3: Comparison of exposure of product and non-product contributions

	Number of reactions	Average per 1 post
Products	57082	1038
Other content	29630	658
		<i>n</i> = 86712

Consistent findings were provided by user-generated content analysis. The Diamondback brand worked with it exclusively, using user-generated content intensively, purposefully and for a long time. Contributions using user photos accounted for up to half of her contributions in 2021. We tried to verify whether this strategy worked or not. From all contributions published in 2021, we calculated the average number of responses per contribution. The mathematical mechanical procedure defined on the direct and indirect proportionality of the resultant was used in the calculations. At the initial input, three variables are involved in real numerical form. The output is the resultant of values while maintaining direct or indirect proportionality with an adequate value of the ratio or product of two input values of a different quantity, which are representative of the third quantity. Through the calculation, we found that the average Diamondback brand interaction rate for the entire year 2021 is 133% of the Specialized brand average interaction rate. The Specialized brand has the largest community, so its data served as a benchmark. It is not possible to make a definitive assessment of its success without knowing the budgets of the brands being compared to promote contributions. Diamondback's pro-community strategy with a strong emphasis on user-generated content seems to be at least an equivalent alternative to the product and technology-oriented strategy of other monitored brands. For completeness, we also provide a comparison of the interactions of other brands in relation to the size of their community. Trek's interaction rate is at the same

level as Specialized (99%). The Giant brand achieves 133% performance of Specialized interactions, and in 2021 the Cannondale brand had three times higher (297%) interaction rates than the Specialized brand. This creates a discussion about the extent to which this result is determined by the clever communication of the Cannondale brand, the extent to which the Specialized brand's strategy is not entirely well established, and the extent to which it is a question of the size of the budget to promote individual contributions.



**Figure 2:** Cycling segment positioning in the social network environment Facebook

Source: Own processing

A qualitative content analysis of the most engaging contributions reveals a strong performance orientation of the cycling community (see Figure 2). In the context of this finding, an explanation is offered for the stability of the membership base, which does not fundamentally reflect the sharp increase in the popularity of cycling during the COVID-19 pandemic. These results suggest that the people who have driven the demand for bicycles since they started cycling much more are not the same who follow the brands on Facebook. Our results suggest that ordinary people's relationship with brands is much less pronounced and much more pragmatic. As a result, they do not identify themselves with the brand of their bicycle enough to watch it on social media. It is obvious that successful bicycle brands do not have the ambition to be attractive to a wide target group, but primarily target a significantly smaller group of enthusiastic performance-oriented cyclists who can fully appreciate their products and philosophy. The content is also adapted to this: top machines, catchy photos, elite athletes.

## 5. Discussion and conclusion

An analysis of the contributions of leading bicycle manufacturers revealed several publishing patterns and strategic approaches. It has been confirmed that the attractiveness of information significantly affects fan engagement (Fortin and Dholakia, 2005; Van Der Heide et al., 2012). However, it turned out that the general rules of attractiveness of content in social media in the cycle segment do not necessarily apply. Based on the work of Lin and Lu (2011) and Sledgianowski and Kulviwat (2009), who found that content providing elements of entertainment has a very positive response from fans, we assumed a significant proportion of lifestyle contributions. Finally, practical experience (e.g. Lozano (2018)) clearly shows that lifestyle contributions can relatively reliably increase the attractiveness of a brand on social media. On the other hand, our research has revealed that this may not always be the case. We've found that cyclists' webmasters significantly prioritize product submissions over lifestyle ones. Only 10 of the 100 most engaging posts were from the lifestyle category, while there were up to 55 of the 100 products. These are the product posts that reliably engage the cycling fan community. A proven type of contribution in the cycle segment is an attractive studio photo of a bicycle combined with a text pointing to a specific property or element. A thorough analysis revealed that among the most engaging contributions were several that lacked any caption, emphasizing the power of an attractive visual.

In the discussion, we see a strong parallel with sports cars in connection with this type of contribution. Erk, Spitzer et al., Who examined the attractiveness of sports cars and found that sports cars significantly stimulated activity in the ventral striatum, orbitofrontal cortex, anterior cingulate and occipital regions significantly more than other types of cars. At the same time, the nice-woman-on-quality-bike formula also worked reliably. Here, too, there is a clear parallel with the automotive segment. As early as the 1960s, Smith and Engel found that in the presence of a model, people found the car more attractive and gave it different characteristics: it looked more expensive, faster, more powerful and less safe (Smith-Engel, 1968). An attractive element specific to various segments and especially to the cycling industry is the brand-racer connection. Several studies agree that fans with a strong psychological relationship with the team, which in this case manifests itself by watching the brand on social media, maintain their support regardless of the percentage of winning teams (Funk, James, 2006; Harada, Matsuoka. 1999; Madrigal, Chen, 2008). On the other hand, the strong relationship was also reflected in the fact that just mentioning the name of the athlete in a post with a photo of his bike (the picture showed a product in the form of a bike without a racer) is enough to make this post one of the most aggressive posts. The analysis also provided a more detailed view of the fact that any contributions devoted to cheering on a sponsored competitor, as well as behind the scenes of preparations for the race, are a guarantee of popularity on the part of Facebook account administrators. Fans also reacted positively to the stories of enthusiasts who were committed to the benefit of the cycling community - e.g. to the story of a guy who builds a downhill run, or to the story of the brand's service team leader.

Our analysis also showed a very low rate of explicit engaging contributions. These posts are very rare, among the 100 posts with the highest interaction rate were only 4. In this regard, our results differ from the conclusions and recommendations of Logan, whose research showed that fans of brands are more interested in people's comments than in corporate news and therefore recommended companies to open a discussion to a greater extent (Logan, 2014). On the contrary, our research shows that in the cycle segment, despite these claims, product contributions have a much higher interaction without an obvious call for discussion. Successful social media brand communication seems to do without such challenges, and investing in attractive product content is more effective than investing in topics that would encourage audiences to respond and create a groundswell.

It would be practical to examine this phenomenon across several segments and find out whether it is a specificity of the cycle-segment or a global trend. The relatively conservative approach to publishing that we noticed during the analyzes may also be related to the effort to maximize the effectiveness of communication. Although Sahaym et al. recommend innovative communication that can be more effective than traditional contributions (Sahaym et al., 2021), among the top 100 contributions we did not find any that would formally or ideologically significantly deviate from the formulas described above. The absence of innovative contributions in the top 100 posts may also be the result of audience conservatism, which has been more interested in traditional contributions than innovative ones. To answer this question definitively, it would be useful to carry out a content analysis focused specifically on innovative communication and to analyze a larger volume of contributions.

Last but not least, our research did not find any significant changes in the long-term trend in the number of fouls. The assumption that the number of fans of bicycle brands on Facebook will increase during the COVID-19 pandemic has not been confirmed. The result, together with the previous ones, suggests that the Facebook community around bike brands is made up of highly enthusiastic, performance-oriented amateur cyclists, as set out in the performance-oriented bike brand philosophy. On the contrary, the members of the community are not ordinary people, whose relationship with bicycles is positive, but much more utilitarian. This conclusion is also confirmed by Sorenson: "Consumers are looking for outdoor- and kid-friendly activities to better tolerate the challenges associated with stay-at-home orders, and cycling fits the bill well" ("Sporting Goods, Home Fitness, and Cycling At the same time, the stability of the long-term trend of the fans indirectly indicates that it was precisely, absent on social media, the majority of ordinary bicycle users that caused a dramatic demand for bicycles during the COVID-19 pandemic. This conclusion is also confirmed by the report of the American NPD market research company. In their report, they report that sales of children's bicycles increased by 59% in March 2020, sales of e-bicycles by 85% and sales of leisure bicycles even by 121% (NPD Group, 2020).

Despite the interesting findings, we are also aware of the limits of the research. The most fundamental limit is ignorance of the exact numbers of decline in Facebook user activity in general. This trend has been talked about among social media experts for a long time, but we have not yet come across a study that would reliably describe it. The complexity of an objective assessment of the decline in activity also stems from the aforementioned fact that the visibility of contributions is directly proportional to the resources invested in promoting the contribution

and that the visibility of the contribution is highly correlated with the degree of exposure. In addition, the expectations of Facebook users have changed over time. Although our findings provide an interesting insight into the effective administration of cycling communities on social media, it is not clear whether these conclusions will be valid for two years. Logan's 2014 conclusions can be a telling example. Nevertheless, we believe that our findings are relevant. They are a significant asset in the segment of bicycle manufacturers. Social media analysis has yielded significant findings in the context of the groundswell. The identified area has been examined at a lower level in the past, although user interaction formed into the groundswell may directly affect the business entity. It is thus extremely important to continue to examine the groundswell in the impact on different business segments.

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