THE USE OF HASHTAGS TO PROMOTE SUSTAINABILITY

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Abstract
Nowadays, social media are used on different purposes, they are not only one of the best marketing tools, but they are also helpful in the process of creation of certain communities fighting for positive changes in the world and they are used to trigger awareness. This paper brings out an analysis on the representation of the sustainability concept on the social media. Our research is based on the usage of Instagram hashtags linked to sustainability on Instagram, based on prior research on the use of hashtags (Ichau, Frissen and d'Haenens, 2019). Our data consists in a set of 100 Instagram posts collected manually from Instagram platform and consists on random publications searching by the hashtag "#sustainability" in order to understand how hashtags contribute to the creation of web representation for this specific concept. An in-depth content analysis has been done in order to understand what type of accounts are using the hashtag #sustainability, and what is the purpose of these publications taking into consideration the type of information provided and also the other hashtags linked with "sustainable/sustainability" in order to have a better idea on the field that it applies to for each post. Our findings show 5 different categories of accounts promoting the concept of sustainability via hashtags: companies, influencers, NGOs, normal accounts and fan pages. Each of these has a different purpose for posting and some correlations can be seen between the type of accounts and the purpose of the post.

Keywords
Instagram, Hashtags, Sustainability, Sustainable practices, Social influence

JEL Classification
M14, L82, L86, Q01

Introduction
Social media has become part of our daily life, making it difficult for an individual to stay away from them and still be fully connected to the world and to his social groups. People get in touch with each other thanks to different platforms where they can exchange and there are

various methods used by people having a certain hobby or interest in order to meet other people from the same area. There are online groups linked to sports, nationalities, universities, jobs and many other things. People usually reunite in order to feel inclusion and to seek for advice or help. For example, a group for foreigners is very useful when moving to a new city helping the newcomers find accommodation, understand the market, be fully aware of the new reality they are living without putting themselves in danger or being victims of scams. In other cases, people living a certain style of life find it easier to share news with individuals living in the same way and they find it really motivating to share little achievements with those feeling the same struggles. Companies who want to promote themselves and their conscious and responsible way of doing business are trying to get to their customers in the same way individuals do. But how can they be more efficient?

There has been an incredible increase in the popularity of hashtags used on different social media platforms. Hashtags are more usually known to exist on Twitter and Instagram. Most of the best innovation implemented by Twitter in its functionalities were ides of users, this is what happened for the hashtags as well since users wanted to have the possibility to easily access public content following a certain categorization (Figueiredo and Jorge, 2019) While posting on Instagram users have the possibility to use hashtags on their caption, they can simply do it by typing "#" followed by text or even an emoji. After doing so, by clicking on the hashtag it brings you on a page that includes all photos and videos containing that specific hashtag. There are a few limits to the hashtag option: for people having private accounts their hashtags won't be shown publicly on the hashtag page we mentioned, also only letters and numbers are allowed while using hashtags. Every account user can tag his own posts and can use up to 30 tags per post (Instagram, 2020), "these are organically transformed into hyperlinks redirecting to all other content on the platform labelled with given hashtag" (Ichau, Frissen and d'Haenens, 2019). Based on a similar research on the use of hashtags conducted by the previously mentioned authors, our study aims to provide a better view on the web representation of the sustainability.

Research background

Since 1972, world leaders reunite every ten years under the authority of UN in order to define and promote sustainable development in the world. Each of these conferences marked a milestone in the international awareness of the challenges of sustainable development. Circular economy is an important aspect to be taken into consideration and it can present new opportunities for everyone involved but the consumers are not always interested to be part of the process. For example, a quantitative research has been conducted in Romania among youth to see if they would take into consideration to reuse the software of their electronic. The results showed that young Romanians use the latest versions of software but in the same time they are conservative with the systems they use and even if they adapt really fast to change they prefer to have stability.

Also, study has been conducted in order to see how "Green" and "Not Green" companies use the social media and what type of communication they have via these platforms, whether in terms of sustainability or not (Reilly and Hynan, 2014). The 16 companies that were studied focused on 4 different industries and data was collected using different resources. Companies were chosen based on their Newsweek score: «since 2009, the Newsweek Green Rankings have been one of the world's foremost corporate environmental rankings" (Newswire, 2016). Results have shown that Green companies are more open to the communication of sustainability info that Non Green ones and they were also more present on social media as Facebook and Twitter. In the same time, it is difficult for companies, especially small ones to ad on top of the need to constantly improve their competitiveness the burden of sustainability, this is why researchers have been studying "Sustainable Strategic Management" in order to

help companies implement the concept of sustainability in a good way leading to the creation of a competitive advantage (Barbosa, Castañeda-Ayarza and Lombardo Ferreira, 2020).

Certain aspects as the education level of the employees, the freedom accorded to businesses and adopting renewable resources has a big impact on building an ecological footprint. Digital aspects are combined with production surroundings introducing smart devices (Beier et al., 2020).Taking into consideration the big impact and evolution that Industry 4.0 known as the fourth industrial revolution has, people are identifying new opportunities of including sustainability functions (Ghobakhloo, 2020). Social media has a big impact on economy segments such as tourism where normal presentations used before have been transformed in snaps on platforms as Instagram or Facebook, where different users work together for the benefit of the field.

In general, social media represents an opportunity for the goods market to reach to consumers, especially when we talk about fashion, businesses are trying to build powerful channels using hashtags (Euromonitor, 2015). In this case, social media become a place for sociopolitical matters, having the great characteristic of making the information easily get to the public but creating in the same time controversial discussions. Some of these topics have become the source of researches who study aspects of the population such as homophily, easily expressed via hashtags (Xu and Zhou, 2020).

A study based on Uses and Gratifications method has shown 6 reasons behind the use of hashtags: "Self-presentation, Chronicling, Inventiveness, Information Seeking, Venting, and Etiquette" (Erz, Marder and Osadchaya, 2018). Also, studies have been conducted in order to predict the time and the volume of the hashtags' peak using Twitter data in order to use results in the implementation of beneficial changes in the usage of some applications (Xu et al., 2018). In the same time, it is pretty difficult to merge hashtags by clusters because user are in total control of the way they are using them, adopting a big variety of hashtags and making it difficult to analyze the common points of them and their context. In this sense, a clustering algorithm was developed in a hybrid way by researchers (Javed and Lee, 2018) analyzing hashtags on a lexical and contextual level.

Research Methodology

This article analyses the creation on a web representation of sustainability on social media platforms. The purpose of this research is to verify the extent of the concept and the fields in which it appears as well as the purpose of its utilization and the correlations that may be established between the purpose and the type of the user. This paper answers the questions if the use of hashtags linked to sustainability is due to the financial purposes or as a tool to raise awareness concerning the importance of sustainable development, a better use of resources and protection of the planet. We collected a random dataset of 100 Instagram post containing the hashtag #sustainability. We have to mention that a total of 5.5M posts on Instagram include this hashtag. Data was collected manually in different Excel files, and it supposed close reading in order to identify connected information and to merge them into different categories. Posts have been published from different countries around the world, most of users being located in Europe and United States. We identified categories for the type of the account, the purpose of the post, the description of the account and the other hashtags linked with sustainability. The next step was to review the categories that were created. A code was determined for every category and applied to all items (n=100) in order to import data in SPSS (Statistical Package for the Social Sciences), for example we used dichotomous variables (0 = yes, 1 = no) for the presence or absence of other hashtags linked to sustainability.

Research results and Discussions
1. Categories of accounts
Based on an analysis of the content we created 5 categories of account (Fig. no. 1): company (businesses as well as brands), influencers (people making advertisement for their own content as blogs and for other brands), NGOs (raising money to help certain causes and promote awareness), normal accounts (personal account from people who decided to lead a sustainable life) and fan pages of personalities. We found 41 companies, 38 influencers, 11 normal accounts, 8 NGOs and 2 fan pages.
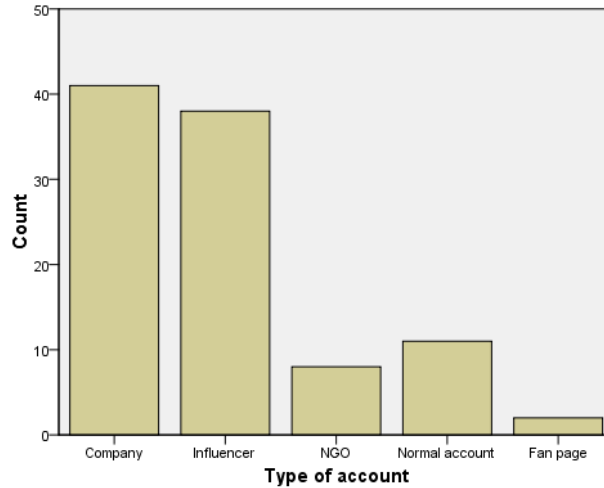
Fig. no. 1 Type of accounts
Source: Authors' own research

The number of followers of these accounts goes from 34 to 667 000 with a mean of approximately 14298, meaning that these hashtags can reach an average of approximately 14K views (Table no.1). The creativeness of the content on Instagram is proven to the leading element to create engagement from the followers' perspective (Casaló, Flavián and Ibáñez-Sánchez, 2018), especially for the fashion market which is in the same time based on our research really involved in promoting sustainability.

**Table no. 1 Statistics about the number of followers**

Statistics

Number of followers

N	Valid	100
	Missing	0
Mean		14293.88
Minimum		34
Maximum		667000

Source: Authors' own research using IBM SPSS Statistics

2. Purpose of the post

We found 5 categories for the purpose of the post as follows (Fig. no. 2): self-promoting, promotion, life style, hidden promoting and information. Most of the posts were created in order to self-promote (influencers promoting their own accounts in order to get followers and increase their position in the rank in order to obtain collaborations, brands promoting their products and services). Consumers make their purchases based on the advice they receive from influencers who are building brand trust (Jin and Ryu, 2020). These posts contained other hashtags such as: #ethicalfashionblogger, #ecofashionblogger, #vintagefashion, #ethicalfashion, #veganpizza or #highquality. There were also posts to promote another brand/ business ("promotion") having a business collaboration behind. "Hidden promotiong" refers to posts created as an information and containing certain tags in order to promote a good or service in a less aggressive way but still visible to the consumers.The posts used only as information were supposed to raise awareness about the dangers for the planet and the possibilities to make a positive impact and they were associated with other hashtags such as: #wastefree, #reducewhatyouproduce, #livesimply. Personal accounts were usually promoting a sustainable life style, frequently describing themselves as "activists" and promoting different things thanks to the hashtags (linked to sustainability): #plantbased, #ethicalconsumer, #veganlifestyle.
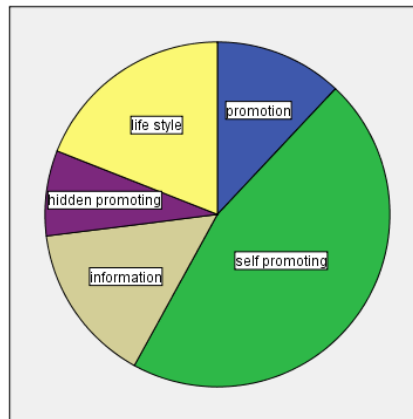
Fig. no. 2 Purpose of the posts
Source: Authors' own research

3. Hashtags linked with sustainability (how many times used)

Aside from sustainability, the maximum number of hashtags adopted by users in the same post with the root "sustainable" or "sustainability" was 5 and out of 100 users only 58 exercised this possibility of using similar hashtags multiple times. We have established the following codes for linked hashtags that we met more than once : "#sustainable fashion"= "0", "#sustainableliving" = "1", "#sustainablelifestyle" = "2", "#sustainablestyle" = "3", "#sustainable" = "4", "#sustainablefood" = "5", "#sustainablehome"="6" and "#sustainabilitymatters" = "7". We found the following records presented in the Table no. 2, meaning for example that the hashtag "#sustainablefashion" was used 23 times. The three most used hashtags were "sustainableliving", "sustainablefashion" and just "sustainable". All the hashtags are used in order to raise awareness among the population but the second one has also a marketing strategy behind, for companies and influencers promoting certain brands. Their purpose is to show that they are doing business in a responsible way keeping the respect

for the environment and the health of their consumers, raising their popularity among the sustainability activists.

Table no. 2 Number of registered uses of a specific code

Code	Total number registered
0	23
1	28
2	9
3	3
4	12
5	2
6	2
7	2

Source: Authors' own research

4. Correlations between data

We used the Pearson correlation coefficient (Table no. 3) in order to see if there is any association between the variables of our dataset. The Pearson correlation coefficient (r) can to from +1 to -1, a value greater than 0 indicating a positive association while one below 0 indicates the contrary, meaning that if the value of one variable has an increase the other variable presents a decrease in its value (Laerd Statistics).

We can see that for the two variables "type of account" and "purpose of the post" we have a correlation significant at the 0.01 level (2-tailed) and the coefficient r is positive and medium (medium goes from .3 to .5) meaning that there is a correlation between the type of account and the purpose of the post. This can be translated as follows: company and influencer accounts have a bigger change of hiding a financial benefit behind the use of the "sustainability" hashtag while personal accounts, NGOs and fan pages are using the hashtag to promote a healthier, simpler, waste free type of life from an ethical perspective which doesn't take into consideration their own financial advantage but the advantage of a sustainable development on a local and global level.

Table no. 3 Correlations

		Type of account	Purpose of the post
	Pearson Correlation	1	.324[**]
Type of account	Sig. (2-tailed)		.001
	N	100	100
	Pearson Correlation	.324[**]	1
Purpose of the post	Sig. (2-tailed)	.001	
	N	100	100

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Authors' own research using IBM SPSS Statistics

5. Performance of hashtags (programs to track)

Tools have been created in order to measure Instagram Hashtag Performance (Table no.4) for users to make sure they get to their target audience and make it easier for them to achieve their established goals.

Table no. 4 Tools to track hashtags

Name of the app
Command (Instagram analytics and tracking tool), an iOS app
Sprout Social (social media management tool)
Simply Measured (comprehensive social tool: analytics, reporting, listening)
Iconosquare (Instagram management system: det in-depth analytics etc.)
Keyhole (social media analytics tool: track hashtag usage statistics etc.)

Source: Social Media Examiner, 2017

Conclusions

The literature has shown that hashtags have a powerful impact on the new era of the digitization revolution, making concepts as "sustainability" way more visible and efficient to get to the audience. In the same time, it is difficult to control what is shared via hashtags and some hashtags are losing from their value because of the small number of usages, as well as a challenge in the way it is contextualized. Many researchers are trying to develop algorithms in order to help applications keep track on hashtags. Business accounts are usually paying for different platforms in order to get their data analyzed and learn when and how to post to get to their target.

The current article analyses the Instagram users that use the hashtag "#sustainability" and in what extent the purpose behind their actions is linked to a financial benefit using this tool as part of the marketing mix in order to promote an ethical and ecofriendly way of doing business respecting the planet as well as people's principles and health. After gathering data from 100 accounts having used the hashtag sustainability, we have seen that all of them are promoting ethical responsibility, circular economy based on reduced consumption, reuse of resources and recycling. Personal accounts are contributing more to raising awareness among the population encouraging to a plant-based diet, a green consumption as well as a simpler and healthier life while business accounts are promoting themselves and brands in order to attract customers and show involvement in a sustainable development. On the other hand, NGOs are fighting against pollution and all the negative impact of the lack of ecological lifestyle, raising money and educating the population concerning the consequences of a harmful existence to the planet. This study also present limitations, based on the small number of analyses accounts this limits the generalizability of the findings. Another limit may be the fact that the main search of the word "sustainability" has been done using English language and tracking the geographical position of the users was usually difficult as well. Further research analyzing the peak of the sustainability hashtag highlighting its importance is needed.

Acknowledgement:

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