

The impact of socially relevant content and aroused emotions in social media consumer engagement behaviour

JACOPO BALLERINI* GABRIELE SANTORO*

Framing of the research. *The digital transition is a necessary step for traditional retailers, who are increasingly embracing new digital technologies to keep up with the times. In addition to relying on external delivery services to start competing in the online segment as Carrefour (FR) is doing with the delivery company Uber Eats (Temiz and Broo, 2020), major efforts are being directed in marketing and communication to keep attracting people to the shop. Some companies such as Tesco (U.K.) or Kroger (U.S.) have been among the pioneers in using digital signage to attract people into the shop (Dennis et al., 2010; Willems et al., 2017). Concurrently, more of these chains are focusing on digital advertising and the usage of growing media such as social media. Retailers in countries like the U.S., UK, Germany, and China are the industry that spends more on digital advertising (Statista Inc, 2020). In particular, a recent survey made on retail marketing professionals shows that 96% of U.S. retailers spend ads on Facebook, and overall, 50% of them spend more than half of their total marketing budget on social (Smartly.io, 2020) to create more consumer engagement and to increase the brand visibility.*

Notwithstanding that the social media ad expenditure continues to grow, these communication efforts will fail if marketers will not understand how to wisely calibrate their content to enhance consumer engagement (Dolan et al., 2019). However, scholars who studied the social media phenomenon within the food-retail industry mainly focused on the consumers' perspective identifying their interest in developing consciousness about food-related information such as supermarket products' healthiness, consumers' rights, or simply new recipes (Panagiotopoulos et al., 2015; Pucci et al., 2019; Samoggia et al., 2019). Despite this, these studies did not investigate the antecedents on consumers' engagement behavior towards supermarkets. Other studies which aimed to investigate how companies can maximize consumer engagement through social media mainly focused on the tone of the content (Dolan et al., 2019; de Vries et al., 2012), or on the choice of the media type (Ashley and Tuten, 2015; Kim et al., 2015; Schultz, 2017), but often neglected the role emotions (Schreiner et al., 2019) aroused from particular topics and reached contradictory findings. Moreover, none of them ever considered the propensity or the aversion of consumers to engage with certain types of industries. Supermarkets, particularly, have the peculiarity of being a segment characterized by a weak affection from consumers, who consider them anonymous "non-places" (Aubert-Gamet and Cova, 1999; Augé, 1995).

Purpose of the paper. *Against this background, and considering the aforementioned gaps, this study aims to provide a better understanding of the antecedents of consumer engagement behavior towards grocery stores' social media brand accounts. Drawing on the Regulatory engagement theory (RET) (Higgins and Scholer, 2009), this research investigates the relationship between socially relevant supermarkets' social media content publication and their consumers' engagement. In addition, referring to the social sharing of emotions theory (Rimé, 2009), the paper explores the mediating role emotions played in this relationship. In particular, we aim to respond to the following research questions formulating specific hypotheses.*

RQ1: is there any topic particularly relevant for supermarkets?

H1: Socially relevant content posted by supermarkets' social network brand pages positively affects consumers' engagement behavior.

RQ2: If social-related content stimulates consumer engagement behavior, why does this happen?

H2: The emotions aroused from socially relevant content mediate the relationship between content social relevance and social media consumer engagement behavior.

Methodology. *Following Voorveld's (2019) research propositions, the study aims to improve social media engagement contributions with real social media data instead of conceptual works or questionnaires. The authors retrieve official social network data from their official API by using, as done by prior marketing researchers, social media analytics software (Jernigan and Rushman, 2014; Marchand et al., 2017). The software used is "Socialbakers*

* Phd Candidate in *Management* - Università degli Studi di Torino - Italy
e-mail: jacopo.ballerini@unito.it

• Research Fellow (RTDB) in *Management* - Università degli Studi di Torino - Italy
e-mail: gabriele.santoro@unito.it

Suite”, considered one of the market leaders in the field (Featured Customers, 2020). The study opts to quantitatively analyze the retrieved data by using the IBM SPSS Statistics v27 software.

Sampling collection included the identification of the 20 top European food retailers, as analyzed in the Global Powers of Retailing Report annually provided by Deloitte (2020), which identifies the top 250 world retailers ranked according to their financial year revenues. Retailer types included in the sample selection are “supermarkets”, “hypermarkets/supercenters/superstores”, “discount stores” and “Cash & Carry/Warehouse Club”. The authors opted to examine their Facebook accounts since it results to be the most common social network (Statista Inc, 2021). Second, for each retailer, the authors identified its most followed Facebook account (several retailers have more than one). The chain Tesco resulted in having no Facebook official account, and the authors decided to select the 21st EU retailer to replace it. The twenty identified Facebook accounts belong to companies from eight different countries: UK, France, Germany, Italy, Switzerland, Netherlands, Portugal, Spain. Third, the authors retrieved all the social media communication from the selected retailers posted during the “first wave” pandemic period from the 1st of March 2020 to the 30th of June 2020. The total number of social media posts detected are 2.534. Afterward, we identify all Covid-19 related content by using the analytics software labelling functionality with including Covid-19 related keywords in the relative countries’ official language.

Firstly, the independent variable, content social relevance (SR), is categorized as the content related vs not related to the selected social issue (Covid-19) with a binomial dummy variable. Secondly, the study considers as the dependent variable the social media consumers’ engagement behaviour considered as the sum of so-called users “interactions” per every post, which are reactions (likes, loves, smiles), comments, and content sharing (Dolan et al., 2019; Schultz, 2017; Zhang et al., 2017). Third, to identify the mediator, emotions, the authors rely on the AI algorithm (Jernigan and Rushman, 2014; Marchand et al., 2017) of the used software to distinguish the positiveness, neutrality or negativity of the sentiment of the 973.285 users comments to the retailers’ posts. The emotion level (EM) is measured by summing the comments that explicitly express positive or negative feelings per each post and excluding comments with neutral feeling. The higher the number, the more the post is considered able to generate emotions. Finally, the authors added several control variables to enforce the robustness of the model. First, the authors take into consideration the number of total followers (TF) that a brand page has (Zhang et al., 2017), since the same number of interactions generated by a post have different weights depending on the total number the brand page. The authors take into account the media type chosen to communicate the posts (photo, video, carousels, status, link ect) since prior research suggests the media choice can influence engagement (Kim et al., 2015; de Vries et al., 2012), by categorizing these nominal variables in several dummy variables. Moreover, to better assess the social relevance of the coronavirus topic, the authors consider the Covid cases ratio (CCR) of the total population that contracted Covid-19 until the 30th of June 2020 by country by taking official primary data from the European Centre for Disease Prevention and Control database (2020). Finally, analysis is enriched by adding a the “boosted posts” variable. According to Facebook (2021) definition, “A boosted post is a post to your Page’s timeline that you can apply money to in order to boost it to an audience of your choosing.”...and it “is the simplest way to advertise on Facebook.” It is arguable to believe that if a post thanks to “boosting” reaches more users, then it will receive more interactions. Thanks to the used software’s AI algorithm, the authors can identify if a post is boosted or not. Then the authors identify the boosted posts (BP) and the non-boosted posts with a binomial dummy variable.

The authors opted for the four-step Baron and Kenny (1986) approach, recently adopted by other scholars investigating in CSR or Social Media topics (Nirino et al., 2020; Paek et al., 2013) to test the mediating effect of emotions on the relationship between content social relevance, and the active consumer engagement behaviour. The first step tests if the causal variable (SR) affects the dependent variable (SMCEB; Model 1). The second step tests the relationship between the mediator variable (EM) and the dependent variable (SMCEB), looking for a significant effect. In step three, the relationship between SR (causal variable) and EM (mediator) is verified. In the last step, the relationship between the causal variable (SR) and the dependent variable (SMCEB) should be controlled by the mediator variable (EM); the relationship is fully mediated if the connection between SR and SMCEB becomes non-significant, as suggested by Baron and Kenny (1986) and there is a partial mediation if the effect of SR on SMCEB is reduced and still significant. In detail:

(1) Step 1: Causal effect between SR and SMCEB

$$\text{Model 1: SMCEB}_t = \alpha + \beta_1 \text{SR}_{t-1} + \beta_2 \text{TF}_t + \beta_3 \text{Photot} + \beta_4 \text{Videot} + \beta_5 \text{Linkt} + \beta_6 \text{Statust} + \beta_7 \text{Carouselt} + \beta_8 \text{CCRt} + \beta_9 \text{BPt} + \varepsilon$$

(2) Step 2: Direct effect of EM on SMCEB

$$\text{Model 2: SMCEB}_t = \alpha + \beta_1 \text{EM}_t + \beta_2 \text{TF}_t + \beta_3 \text{Photot} + \beta_4 \text{Videot} + \beta_5 \text{Linkt} + \beta_6 \text{Statust} + \beta_7 \text{Carouselt} + \beta_8 \text{CCRt} + \beta_9 \text{BPt} + \varepsilon$$

(3) Step 3: Effect of SR on EM

$$\text{Model 3: EM}_t = \alpha + \beta_1 \text{SR}_{t-1} + \beta_2 \text{TF}_t + \beta_3 \text{Photot} + \beta_4 \text{Videot} + \beta_5 \text{Linkt} + \beta_6 \text{Statust} + \beta_7 \text{Carouselt} + \beta_8 \text{CCRt} + \beta_9 \text{BPt} + \varepsilon$$

(4) Step 4: Mediation effect including EM and SR as independent variables

$$\text{Model 4: SMCEB}_t = \alpha + \beta_1 \text{SR}_{t-1} + \beta_2 \text{TF}_t + \beta_3 \text{Photot} + \beta_4 \text{Videot} + \beta_5 \text{Linkt} + \beta_6 \text{Statust} + \beta_7 \text{Carouselt} + \beta_8 \text{CCRt} + \beta_9 \text{BPt} + \beta_{10} \text{EM}_t + \varepsilon$$

To assess the mediator effect, the authors test the significance between SMCEB, SR and EM. In the first three models, the relationship between SMCEB, SR and EM must be significant; otherwise, the model does not understand the mediating effect. Furthermore, in the fourth model, the impact of the mediator variable must be significant and

positive, so we compare the value of β_1 in the first model with the level of β_1 in the last model. The overall value of β_1 in the fourth model must be lower than the first one. If in model 4, the significance of β_1 decreases compared to model 1, it is possible to assume a full or partial mediation of EM on the relationship between SR and SMCEB.

Results. Model 1 confirms the existence of a significant positive direct relationship (Beta = 0,096 and P value < 0.01) between the content social relevance, in this case the posts concerning Covid-19 pandemic issue, and active social media consumer engagement confirming hypothesis 1. Significant control variables resulting from the model are the Covid cases ratio (Beta = 0.075 and P value < 0.01), boosted posts (Beta = 0.148 and P value < 0.01) and the media type status (Beta = 0.054 and P value < 0.05). The model's results cannot support prior literature (Zhang et al., 2017) assessing that total followers are an impactful variable which in the model results to be not significant. Moreover, Model 1 cannot support prior literature assessing that vivid media types such as carousels, photos, and videos enhance consumer engagement since none of them is significant, and on the contrary, the only media type resulting positively significant (status) is the one identified by literature as the less vivid (Schultz, 2017; de Vries et al., 2012).

Model 2 supports that EM strongly affect social media consumer engagement behaviour (Beta = 0.424 and P value < 0.01). Model 3 individuates a triggering role of content with high social relevance, in this case Covid-19, (Beta = 0.164 and P value < 0.01) on emotions sharing. Model 2 and Model 3 are preliminary tests necessary to consent to including both independent variables in the next final model.

Finally, Model 4 which includes both independent variables SR and EM, supports that there is a strong direct relationship between EM and SMCEB (Beta = 0.419 and P value < 0.01) but the relationship between SR and SMCEB results to be not significant. These findings attest that EM plays a fully mediating role on the relationship between SR and SMCEB backed also by the R squared which in model 4 is 0.200 gaining exponential robustness from the 0.042 from the first model including the only SR independent variable, confirming hypothesis 2. Additionally, the model attributes a statistically significant relevance to the boosted posts (Beta = 0.114 and P value < 0.01), which result to be significant in every tested model, and to the number of total follower (Beta = -0.044 and P value < 0.05) which surprisingly affects negatively the active social media consumer engagement behaviour, in contrast with prior research (Zhang et al., 2017). A possible interpretation of this result can be the fact that the higher is the public that potentially can read the consumers emotive comments on social media, the more they tend to be shy. All the tested media types in the final model are not statistically significant, thus not able to support prior research (Dolan et al., 2019; Kim et al., 2015; Schultz, 2017; de Vries et al., 2012).

Research limitations. It must be noted that this study has some limitations. First this study was conducted on a limited sample of supermarkets. A future study could test the hypothesis on a larger sample comparing also different cultural behaviors from different countries which could affect the SR/SMCEB relationship. Secondly, the resource in the authors' hands were allowing them to conduct the research just on a single social media. Third, the study examined a particularly relevant social topic but did not focused on other possible ones.

Managerial implications. The findings of this research can be helpful for all social media practitioners in the food grocery field but can give some takeaways also for other practitioners from other sectors. Indeed, the results of this research suggests that social media managers from supermarkets should stop being shy, avoiding communication on social related topics, as they usually tend to do (Samoggia et al., 2019); this study encourages them to communicate on content with a high social relevance, since it will stimulate engagement. Especially supermarkets with large and different kinds of customers, and characterized by a poor branding embeddedness (Augé, 1995), could perhaps focus on communication on topics that attract interest of all the social classes such as the results evidenced with the Covid-19 topic. It cannot be excluded that other content with a great public and social importance, for example the Football World cup, the Olympic games, or the governments' elections could stimulate more consumer engagement on supermarkets social media brand pages. However, it is fundamental to distinguish between communication on a social and controversial issue, and defending a position on a topic, which can cause different reactions on the consumer base. Additionally, the research outcome puts in result the crucial role of emotions. Beyond the topic choice, social media practitioners are encouraged to always take into account that the more they are able to arouse strong emotions through their content, explicitly reflected on the comment's feelings, the more they will be able to stimulate the engagement of their consumers.

Originality of the paper. By testing this relationship, the authors support the validity of the Regulatory Engagement Theory (Higgins and Scholer, 2009) in the field of social media marketing, and in line with Zhang et al. (2017) sustain that people tend to engage more with topics that have a precise fit with their interests. Going beyond the concept of the specific interest on a topic by a niche of consumers, the paper contributes to the literature supporting that a vast and heterogeneous population of consumers, such as the supermarkets' shoppers, can still be engaged by topic of the public domain with high social relevance. Thus, the Covid pandemic confirms to be a topic of tremendous social interest for most of all the segments of the European food retailers' consumers. Moreover, the authors followed the call for research evidenced by Schreiner et al (2019), on the role of the emotions in the relationship between social media content and active social media consumer engagement. Specifically, the study identifies the topic social relevance as an antecedent of emotional expression which in turn positively affects active consumer engagement behaviour. Emotions confirms to be a mediator of this relationship also when the topic is general and not particularly interesting for a certain consumer segment, but socially relevant. Finally, the study supports the validity of the social sharing of emotions theory (Rimé, 2009) within the supermarkets' social media paradigm.

Keywords: *Social Media Engagement; Baron & Kenny; Covid-19; Supermarket*

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