The role of emotions in B2B product advertising on social media: a family business case study

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**Abstract**
**Purpose** – The outbreak of Covid-19 increased the average time spent on social media (SM). This led to a transformation in how companies manage their digital marketing channels and created additional pressure for business-to-business (B2B) and family businesses, which tend to focus more on personal relationships with customers and stakeholders than on the implementation of digital marketing strategies on SM. The present research examines the case study of a Facebook advertising campaign created to promote the products and business values of an Italian family firm specialising in the production and commercialisation of biostimulants for agriculture.

**Design/methodology/approach** – The research aims to combine digital marketing avenues (i.e. a Facebook advertising campaign) with established psychological and behavioural theories, such as the dual process theories, by comparing the effects of two promotional videos (emotional vs functional).

**Findings** – The results suggest that emotional videos generate more passive behaviours, such as views, as well as active behaviours in the form of likes, comments and shares, while functional videos induce people to search for more information about the advertised products.

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Originality/value – This is the first study to validate the role of Facebook advertising campaigns in developing an information-based approach to B2B family firms by testing the effectiveness of a targeted campaign comparing the impact of emotional and functional cues on increasing users’ engagement while optimising the circulation of video content. The study helps to reduce the academic–practice gap by investigating the example of a fruitful integration between academic research and management practice.

Keywords Family business, B2B, Facebook, Advertising, Digital marketing

Paper type Case study

1. Introduction

Many examples of strategic responses to changes in the market (as well as to the Covid-19 crisis) have been seen in family firms, which have recently received remarkable media coverage. Many of these responses involve production in terms of working shifts, temporary closures, the reorganisation of production, and operations (Kraus et al., 2020). At the same time, there are also less technical and more marketing-oriented examples of family firms’ responses to the crisis, such as in the marketing efforts used to preserve and maintain their business relations and activities (Kraus et al., 2020). Marketing practices are critical for the success of both large and small firms, and the same applies to family firms, especially as the market grows increasingly competitive and risky due to less predictable, though more frequent, negative events (Reuber and Fischer, 2011). A glance through the marketing and communication journals on family businesses revealed a prevalence of studies on brand-building activities and customer loyalty involving the image and reputation of family firms (Sageder et al., 2018). Some of the studies focusing on marketing communication within family firms (Reuber and Fischer, 2011) observed that, while the internet and, in particular, social media (SM) represents an increasingly popular way of reaching customers, many family firms continue to rely on classical communications channels (Astrachan et al., 2018). This indicates the need for particular research examining current marketing practices in new fields such as the digital domain. According to File et al. (1994), family firms are defined as enterprises in which two social systems, the family system and the business system, intersect, with the former influencing the latter due to its inherent involvement in the ownership and business management. In B2B contexts, meanwhile, the two systems are involved in a third intersection with business partners such as wholesalers or retailers. Generally speaking, the owners of family businesses devote less time to strategic thinking related to marketing options (Brown, 2005) compared to large listed companies. This is particularly true in the case of digital marketing, which involves using digital channels to promote products and services (Astrachan et al., 2018) and reach consumers in a more personal, timely and cost-effective manner (Siakas et al., 2014). Many of these business owners do not perceive that digital marketing will add value to the business. SM is one of the most important technological trends in the domain of digital marketing. It can enable new forms of communication and facilitate engagement across a wide range of dissemination activities with great efficiency (Vlachakis et al., 2015). However, as a new tool at companies’ disposal, digital marketing appears to be less valued in B2B than in business-to-consumer (B2C) contexts. Indeed, until recently, it was considered that only B2C organisations could benefit from digital marketing (Lacka and Chong, 2016). With certain exceptions in the form of multinational B2B corporations such as Cisco and IBM, which have successfully challenged this perception (Venkatesh et al., 2019), many B2B companies remain in the early stages of adoption when it comes to information and communication processes. To date, many have only tentatively begun to exploit digital opportunities, primarily to promote their family business brand and communicate the “family” nature of their organisations (Lude and Prügl, 2018). They have tended to be relatively restrained in adapting to the digital marketing paradigm due to a lack of comprehensive knowledge concerning best practices in B2B digital marketing, which impacts their return on investment (ROI) (Wertime and Fenwick, 2011). This is reflected in the relative lack of academic ferment and, consequently, in the limited number of contemporary studies in B2B marketing examining the effects of digital media platforms (Vieira et al., 2019).
In B2B markets, where the decision-making process takes time and passes through various stages before a final purchasing decision is made (Pandey and Mookerjee, 2018), the focus is on marketing the value chain, with attention focused on lead segmentation and content delivery (Järvinen and Taiminen, 2016). This also applies in current digital marketing campaigns, where executives in B2B approach SM primarily as a means of bypassing multiple layers and connecting to user-department executives using LinkedIn (Pandey et al., 2020). In doing so, however, they continue to miss out on exploiting the potential offered by Facebook to enhance lead generation and brand awareness. As reported by LinkedIn, “although all those goals can be achieved via Facebook ads, many B2B marketers stick to LinkedIn ads and fail to imagine how valuable Facebook ads can be” (LinkedIn, 2021).

In addition to the ongoing low penetration of digital marketing campaigns in family B2B businesses, it is worth noting that not all business sectors share the same interest and desire to invest in new marketing channels. This includes the agricultural sector, where those investing in digital marketing tend predominantly to be multinational and start-up companies (Birner et al., 2021). Yet while the traditional approach to B2B family marketing has relied heavily on in-person sales pitches, the Covid-19 pandemic has exposed new avenues for reaching prospective clients that avoid bombarding them with promotional content (Fortune, 2020). In this vein, scholars have highlighted the need for research in B2B digital marketing, as it could provide new directions for future research. From this premise and in a context where the majority of research on marketing communication in family firms is deeply rooted in the B2C domain (Lude and Prügl, 2018), the present study offers a twofold gain by presenting an example of the possibilities that SM platforms offer to family firms in the B2B agricultural sector. Precisely, it consists of an experimental case study of a family enterprise specialising in the production and commercialisation of biostimulants and speciality nutrients that employs LinkedIn for general business communication, which is related to employees or corporate events, and Facebook for communication related to products and services. The experimental case study involves a Facebook advertising campaign carried out to promote the brand and its products. Specifically, the research aims to combine new digital marketing avenues with established psychological and behavioural theories, such as the elaboration likelihood model (ELM) (Petty et al., 1981) and Kahneman and Tversky’s dual process theory (Tversky and Kahneman, 1992), to provide insights into potential new marketing strategies by comparing the effects of two promotional videos, one featuring emotional components and the other featuring instrumental traits. The main contribution of the study concerns its confirmation of the effectiveness of a targeted Facebook advertising campaign as a powerful method to leverage more views, likes, comments and shares in the case of emotional videos, and search behaviour in the case of functional videos, thus supporting the opportunities and great potential of this type of digital strategy for companies in the B2B sector. Of note, given the typically lower resource levels of small and family businesses compared to larger listed enterprises, the results are of particular interest to the former due to the lower costs associated with this type of advertising versus more traditional offline and online campaigns. Additionally, this research contributes to the academic–practice gap, specifically in terms of evidence-based practice (Rynes and Bartunek, 2017), which “is about making decisions through the conscientious, explicit and judicious use of the best available evidence from multiple sources by: asking an answerable question; acquiring research evidence; appraising the quality of the evidence; aggregating the evidence; applying the evidence in decision-making, and assessing the outcomes of the previous steps” (Barends et al., 2014). In this regard, the study provides an interesting example of how research approaches can be successfully, and possibly routinely, implemented in managerial practice as a means of improving the quality of decision-making in crucial areas, such as marketing strategy.
2. Literature review and hypotheses development

2.1 Social media marketing: Facebook advertising in B2B and family firm campaigns

SM marketing is defined as the “utilization of social media technologies, channels, and software to create, communicate, deliver, and exchange offerings that have value for an organisation’s stakeholders” (Tuten and Solomon, 2014, p. 21). The use of SM platforms as marketing channels has expanded in recent years, driven by the ability to reach millions of customers with brand-related content and engage them in conversations (Hanna et al., 2011; Schivinski and Dabrowski, 2016). The most influential studies on the subject have been grounded in the B2C domain and have formed the basis for the academic conception of how SM can be exploited to build brands and communicate with customers (Kaplan and Haenlein, 2010; Mangold and Faulds, 2009; Kietzmann et al., 2011).

In B2C, the consumers are the final users of a good and/or service and represent the last decision-makers about spending money; thus, by using different marketing techniques, a firm’s end goal is to convince consumers to buy a certain product or service. In the B2B domain, the final decision of whether to purchase products or services does not usually rest with a single person. Instead, several people are often involved in the decision-making and sales cycle; these individuals may work in different departments but share the same level of influence over the final purchasing decision (Di Fraia, 2015). A B2B context comprises multiple actors who interact in different ways (Håkansson et al., 2009), with different sets of objectives depending on their role and individual perceptions (Mikolon et al., 2015; Zolkiewski et al., 2017).

The use of SM by B2B organisations emphasises the complex interactions involved, with multiple internal and external stakeholders including customers, employees and even competitors (Singaraju et al., 2016). The touchpoints in B2B are more complex and likely to be spread across different teams and functions within a potential client firm, as opposed to resting with just one potential consumer (Zolkiewski et al., 2017). In B2C, the target is one “persona”, which makes it easier to measure the efficacy of digital marketing initiatives, especially if the firm has an e-commerce service. In B2B, digital marketing initiatives can reach different audiences with heterogeneous levels of interest in the firm. This presents fewer chances to directly and effectively correlate initiatives taken with possible sales, thus making it difficult to immediately evaluate the effectiveness of SM. It was somewhat predictable that in a study involving 166 B2B companies, 94% of the respondents did not measure the ROI of their SM use (Dwivedi et al., 2019).

Despite this, SM use could have been linked effectively to indicators other than sales, such as those related to a specific type of campaign (e.g. the number of emails opened in a newsletter campaign or the engagement rate in a Facebook campaign).

While there is some evidence that trends are changing and that B2B managers are welcoming SM campaigns, not all companies consider SM as part of a marketing strategy (Dwivedi et al., 2019), and many do not make any provision for SM in their marketing budgets, despite its potential impact (Diba et al., 2019). Alongside the emerging evidence for SM campaigns in a B2B context, family businesses have also appeared to benefit from SM marketing activities aimed at developing and enhancing brand and product awareness (Astrachan and Botero, 2018). Such firms can build competitive advantage by positioning their uniqueness on SM (Obermayer et al., 2021) and differentiating themselves from competitors by leveraging their family business brand (Lude and Prügl, 2018). SMEs and family businesses form the backbone of the EU; as such, their success is vital. If they choose to invest in their SM presence, then their choices of SM tools and platforms become extremely important (Obermayer et al., 2021).

Over the years, brands have massively embraced Facebook as a key marketing channel to drive engagement and brand awareness. Although still in the early stages, many B2B companies and family businesses are also now turning to this channel, with the latter notably seeking to enhance the reputation of the family firm (Astrachan et al., 2013). Given its interactive nature, Facebook is well placed to strengthen both a firm’s relationship value and community,
stimulating the development of long-term and emotional relationships (Cornelissen et al., 2019). International container shipping company Maersk Line has been successful in this regard. It has 1.1 million followers on Facebook, where it publishes captains' blogs and stories about people and other issues at a fraction of the cost of advertising (Diba et al., 2019). Facebook can serve as a critical element of any organisation’s marketing strategy as firms can effectively leverage their wall posts to generate greater propagation, richer conversation and convert more consumers into brand advocates (Malhotra et al., 2013). With more than 1.5 billion active daily users, representing 20% of the global population, the platform’s potential extends beyond the sheer number of people to the degree of attention paid to Facebook globally, along with the average time that users spend (almost an hour per day) on it. In this vein, Facebook pages have become the gateway for businesses to market to this “holy grail of users”. With such a massive and diverse collection of users, Facebook offers a unique opportunity for marketers to drive awareness of their brands with the potential to drive more leads and customers than any other paid channel (Hubspot, 2021). This is why more and more companies are pushed towards Facebook advertising campaigns and also why researchers seek to explore the role of Facebook in building customer and brand relationships, along with the perceived value of advertising (Ramadan et al., 2018). On Facebook pages, the brand-related information presented in posts not only engages interested consumers but also guides them through the process of brand evaluation (Chen et al., 2015).

Yet, despite Facebook’s undisputed potential, B2B and family businesses face barriers to its strategic adoption, notably in the form of a lack of staff familiarity and technical skills (Dwivedi et al., 2019). In light of this, in this study, we endeavour to understand the most effective type of communication to employ in Facebook advertising. While in B2C, research has shown that digital marketing activities related to building interest among consumers through engaging narratives are winning strategies, for B2B family firms, whose stakeholders are people that are oriented to the business and very skilled in their field, the effectiveness of certain types of communication remains largely and surprisingly unexplored (Lude and Prügl, 2018). When people are confronted with a brand, they are exposed to a variety of informational cues on which they form their opinions and brand evaluations (Lude and Prügl, 2018). At this point, as reported in Astrachan et al. (2018), we know little about which types of communication and channel may be more or less suitable to promote a family business given that most of the work on channels to date has focused on websites (i.e. Botero et al., 2013). This highlights the need for research identifying the effective communication cues on which targeted campaigns should be focused to increase brand awareness and engagement.

2.2 The impact of affective and cognitive message framing on Facebook metrics

As reported by Haddock et al. (2008), a series of famous television advertisements in the 1970s showed professional athletes stating their preference for a particular brand of beer. While some of the athletes noted that the beer tasted great, others reported that it was less filling than other beers. The first element of the message highlighted a positive affective response (i.e. the taste), while the second highlighted a positive attribute of the beer (i.e. its low caloric intake). This difference in focus illustrates a long-lasting distinction between affective and cognitive attempts at persuasion (Haddock et al., 2008).

An affective message highlights things that individuals like about a product and focuses on its emotional value, whereas a cognitive message principally describes information and features and focuses on the utilitarian value (Foti et al., 2020). Whereas cognitive information processing is based on deliberate, analytical thinking, affective information processing is based on rapid and emotional feelings (Epstein, 1994). Extensive research has investigated the notion that individuals can vary in their underlying cognitive or affective orientations, which as a distinction has important implications for persuasion. Thus, even when two
messages cover the same information, the mere act of framing that information in cognitive or affective terms on SM platforms may result in a more persuasive appeal (Foti et al., 2020).

Petty and Cacioppo’s (1986) ELM is a well-known information dual-processing theory that established this distinction. The model posits two relatively distinct routes to persuade consumers: central and peripheral routes. In the central route, individuals process information to achieve more rationality; they deliberately process and react to message-related information. Through the peripheral route, decisions are based more on emotional and affective aspects (Lu et al., 2019). However, while Petty et al. (2001) suggested that consumer attitude formation is determined by the combined effects of affect and cognition, the effects of such elaborations on attitudes within this process may also vary across situations and contexts (Chen et al., 2015). Similarly to the ELM, from a collateral perspective, according to Kahneman’s Dual Process Theory, although people are supposed to act using System 2, which Kahneman described as rational, conscious, slow, controlled, deliberate, effortful, statistical and suspicious in elaborating all the information and taking conscious decisions, our cognitive system prefers to save energy by mainly relying on System 1 that, contrarily to System 2, is intuitive, automatic, unconscious and less time and effort-consuming (Kahneman, 2011).

Research on the role of affective and cognitive processing styles has proved that focusing on cognitive as opposed to affective components can lead to very different evaluations (Zauberman et al., 2006), attitudes (Edell and Burke, 1987) and decisions (Hsee and Yuval, 2004), as well as responses to the stimuli.

Some recent research has demonstrated how both rational and emotional messages can influence users’ behaviour in terms of their engagement on SM (Dolan et al., 2019). The authors distinguished two types of behaviours that they termed active (like, share, and comment) and passive (views) and demonstrated that rational content creates a greater impact on the active behaviour towards the posts by users, whereas emotional content fosters more passive behaviour. Other studies have shown how emotional and rational advertising may appeal differently depending on the kind of goods or services being advertised (Zhang et al., 2014). For example, concerning credence services (i.e. physiotherapy), it seems that rational advertising messages (informative messages) have more appeal to customers than emotional ones. In contrast, for experience services (i.e. hotel, fast food), it is better to focus on emotional messages when seeking to convince customers (Zhang et al., 2014).

Generally, both affective and cognitive elaborations lead to the formation of attitudes towards a post or an ad. In this sense, the cognitive and affective elaborations elicited by Facebook posts could positively contribute to consumers’ attitudes towards those posts (Chen et al., 2015). However, well-known advertising-planning models recommend matching the advertising appeal to the attitudinal basis, i.e. rational and informational advertising for “thinking” or “functional” products or services and emotional appeals for “feeling” or “transformational” products (Dubé et al., 1996). In this vein, past research has consistently proposed that persuasive appeals tend to be more effective when the nature of the appeal is aligned with the basis of the attitude (Ruiz and Sicilia, 2004). Past research has argued that the communication of a family business brand varies depending on whether the business is focused on a B2B or a B2C market and that differences in how consumers process information in these two contexts lead family firms to vary their strategic decisions about communicating their brand (Botero et al., 2019). However, these effects have yet to be sufficiently discerned from the perspective of the message receiver. In addition, although affective and cognitive message framings have attracted substantial attention from advertising scholars (Chang, 2008; Andrade and Cohen, 2007; Clore and Storbeck, 2006), very little has been uncovered in the context of a family firm’s SM (Botero et al., 2019) and more specifically within video advertising campaigns. Therefore, the psychological states induced by affective responses and cognitive evaluations, through which users process B2B family firms’ brand-related information to form attitudes in SM contexts, is a timely topic requiring attention.
Our study focuses on an agricultural family firm operating in the plant biostimulants market. A characteristic of this market is the combination of both a credence service (reflecting the agronomic support provided) and an experience (due to the product bought and used by the farmers). Thus, following Kahneman’s and ELM theory, as well as results from studies where rational and emotional messages were found to differently influence users’ behaviour in terms of their engagement on SM (Dolan et al., 2019), although far from the rigour and rational processes one would expect in the B2B decision-making context, it may still be reasonable to expect that B2B operators would be further influenced by their System 1 and would therefore be drawn to more affective marketing messages that appeal to their emotional as opposed to their rational side, which leads to the following research question:

RQ. How do users engage in terms of views, likes, comments, clicks, and shares, when exposed to an emotional vs functional content in a B2B Facebook video advertising campaign?

3. Method
3.1 Preliminary information
To test our hypothesis, an experiment based on a real Facebook campaign was run, by comparing different kinds of messages. We tested our hypothesis by considering different types of behaviour that were observable in the users, such as passive (views), active (likes, comments, shares) and call to action (CTA).

More broadly, to contribute to the emerging literature on this topic, we investigated whether and how different types of user behaviour could be modulated by either affective or functional messages. Our study was divided into two experiments. In the first experiment, a sequence of affective and functional videos was presented in a counterbalanced order by different testimonials at different points in time for three months. The second experiment was designed to test whether the findings could be replicated through a Facebook A/B test.

3.2 Participants
The Italian agricultural sector is characterised by micro-companies led by a grower and a single collaborator (EIB, 2020). The grower makes the final purchasing decision about the agricultural inputs to use on their farm, although they are influenced by external consultants (autonomous technicians), the preferred reseller and technicians from manufacturing companies. Each of these figures can be considered as “in target” for the digital marketing campaign. In order to reach such target, the audience perimeter was set on Facebook as follows:

1. Audience by interests and work: professionals aged 25–64, interested and working in the world of agriculture, agronomy, crop yields, crop protection and fertilisers.
2. Warm audience: people who already know or have been in contact with the company, who have visited the company’s website or interacted with its Facebook page during the previous four months.
3. Look-alike audience: people who have a similar profile to the existing audiences mentioned above. This latter audience is automatically created by Facebook in a bid to capture people with similar characteristics to the warm audience.

3.3 Development of the emotional vs functional videos
Since the goal of our study was to discover potential differences between the reactions to different messages, two types of advertising videos were used. Both ads were based on the presentation of a specific line of products through the pitch of various testimonials from actual buyers and users of the products. The fundamental differences between the emotional
and functional copies were the type of messages conveyed through the pitch and the background music.

The first step was to identify some of the key concepts that could activate either affective or cognitive mental mechanisms. It is worth highlighting that by affective we do not mean purely entertaining; rather, we refer to intangible values such as feelings related to the product and the company. By cognitive we refer to the tangible practical and technical advantages offered by the company’s products. A previous customer satisfaction campaign helped to identify the concepts that clients distinctively associated with the company’s products. To create the emotional copy, three distinct concepts related to the product were selected – trust, respect for people and respect for the environment. The emotional questions were related to the feelings of using the product line and producing high-quality food and the positive effects for the natural environment (e.g. “what are your feelings since using the line of product?”). For the functional copy, concepts related to transmitting technical information about the performance of the products, the ROI, and best practice in using the products were selected. Specifically, questions related to the functional aspects of the products (e.g. “what is the most important parameter for the evaluation of your crop?”).

Since digital content featuring text alone is perceived as less vivid than content that includes both text and images (Coyle and Thorson, 2001), the messages were developed by considering a balanced application of text and pictures. The text was coherent with the video message. For example, the text used to promote the functional videos included the phrases “results got”, “how to use a specific line of product” and “discover how to increase your yield”. In the case of the affective messages, the text used included sentences such as “passion for its own work” and “respect for people and environment”.

The testimonial interviews were used as the starting point from which to edit both the emotional and functional videos. The interviews were developed to create the two types of videos and could be classified as semi-structured interviews (Qu and Dumay, 2011); that is, they featured a set of planned questions with a main theme (the products of a specific company line). The interviews were conducted in person, on the land owned by the interviewed farmers. A peer-to-peer interview approach was adopted, i.e. in a bid to put the interviewee at ease and generate a connection between the interviewee and interviewer, to help ensure the testimonials were as truthful as possible. A total of 10 questions were asked in sequence. Each interview produced around 30–40 min of footage. Six testimonial interviews were conducted, with two videos obtained from each, one emotional and one functional, to give a total of 12 videos. The videos were then pretested by asking a sample of independent participants (n = 20; 10 for each version, emotional/functional) to rate the videos on an analogue scale ranging from completely emotional to completely functional. On average, all of the emotional videos were perceived as more emotional than the functional videos; at the same time, the functional videos were rated as more functional than the emotional videos. Table 1 summarises the characteristics of the two kinds of videos.

<table>
<thead>
<tr>
<th>Item</th>
<th>Emotional videos</th>
<th>Functional videos</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration</td>
<td>120 s</td>
<td>120 s</td>
</tr>
<tr>
<td>Music background</td>
<td>Emotional</td>
<td>Non emotional</td>
</tr>
<tr>
<td>Main Theme</td>
<td>Interviewee’s feelings toward the line of products, highlighting how research and innovation is placed in the service of nature and society, while respecting the environment and protecting the health of everyone</td>
<td>Interviewee’s practical experience with the line of products (e.g. formulations with rapid absorbed nutrients, increase of quality and quantity of crops)</td>
</tr>
<tr>
<td>Key messages</td>
<td>Trust, passion, integrity, respect for people and for the environment</td>
<td>Products’ performance, instructions about products’ use, recommendations about products’ use</td>
</tr>
<tr>
<td>Note(s):</td>
<td>Emotional vs Functional</td>
<td></td>
</tr>
</tbody>
</table>

Table 1. Characteristics of the two videos
3.4 Facebook advertising and structure of the campaign

Facebook enables different goals to be set for a promotional campaign, divided into three macro-categories: notoriety (which aims to generate interest in a brand, product or service), consideration (aiming to direct people to seek more information about the company) and conversion (to encourage people interested in the company to purchase a product and/or service). The three categories are considered preparatory, depending on the needs.

In this study, the objective of the campaign was “video viewing”, which falls within the “consideration” macro-category. This meant that users clicking on a CTA were directed to the landing page displaying testimonials talking about the product lines.

Each promoted post was assigned a promotional budget of 200 euros for seven days. The first video was released on 8 February 2021 and the final one on 26 April 2021, for a total campaign duration of around three months. To prevent a possible novelty effect of the testimonial, whereby the first video attracted more attention than the second, the order of the first video was counterbalanced across the testimonials, so that three of them began with the affective video, and the other three with the technical video.

The first experiment was conducted within an existing advertising campaign being run by the company to provide an initial estimation of the direction and strength of the effects under investigation. However, due to the intrinsic limits of Facebook advertising campaigns, in this situation, we were unable to entirely control whether each user was actually exposed to both experimental conditions. Thus, in the following experiment, to overcome this limit, Facebook A/B testing was performed to complete our investigation by ensuring that each user was exposed to only one of the experimental conditions.

3.5 Facebook A/B testing

To obtain more robust results, we replicated the previous experiment by running A/B testing using only two affective and technical videos from the testimonial that had attracted more attention in the previous campaign. This method has the additional benefit of enabling a direct comparison in the same period while also adjusting the allocation of the initial budget depending on the users’ interest in the posts. Moreover, this type of test takes place strictly between participants. In this case, the objective of the campaign was set to obtain views that have lasted for a minimum of 15 s. The test was conducted over 15 days, from 21 June to 5 July 2021. The target audience had the same characteristics as the previous experiment.

4. Metrics, key performance indicator (KPIs) and data analysis

4.1 Facebook advertising campaign: metrics and KPIs

In selecting metrics and KPIs, we considered both the existing scientific literature (Northcott et al., 2021; Cordero-Gutiérrez and Lahuerta-Otero, 2020) and common practice in Facebook advertising management (Hawkmedia, 2020). While the budget allocated to the individual posts never varied, the number of times that the ad passed on people’s feeds (impressions) may have differed due to the way in which Facebook’s algorithms work. However, impressions are not particularly informative by themselves as they are not a direct measure of users’ interest in specific content. Therefore, we used views (each time the video was watched for 30 s or longer) as an initial indicator of interest. Subsequently, we combined both metrics to obtain the View Rate (VR), which revealed the number of views given the number of impressions. This was necessary to obtain clear insights from the data. For instance, a large number of views may indicate high interest in the content, but what truly matters is the number of impressions from which that result has been generated. In the case of VR, assuming the number of impressions remains constant, higher ratios indicate a greater
likelihood of content attracting and retaining users’ attention. The ratio was calculated as follows.

\[
\text{View Rate (VR)} = \frac{\text{Views}}{\text{Impressions}}
\]

This logic was also applied to the second KPI, the Engagement Rate Index (ERI). The only difference is that this ratio comprises the sum of the engagement metrics as the numerator (number of likes, comments and shares) and the number of views as the denominator. Here, we used views as opposed to impressions as the latter metric is unlikely to result in conscious actions related to the video. In terms of ERI, assuming the number of views remains constant, higher ratios indicate a greater likelihood of content triggering reactions in users. The ratio was calculated as follows.

\[
\text{Engagement Rate Index (ERI)} = \frac{\text{Like} + \text{Comments} + \text{Shares}}{\text{Views}}
\]

The final KPI was the Call To Action Rate (CTAR), which refers to the ratio between the number of clicks elicited from a CTA and the number of views. For the CTAR, assuming a constant number of views, higher ratios indicate a greater likelihood of content leading users to search for additional information about the advertised product. The ratio was calculated as follows.

\[
\text{CTA Rate (CTAR)} = \frac{\text{CTA}}{\text{Views}}
\]

4.2 Facebook A/B testing: metrics and KPIs

In contrast to the previous campaign, we introduced two new KPIs related to the efficiency of the campaign in terms of costs: Cost Per View (CPV) and Cost per Click (CPC). Both KPIs were calculated considering the Budget allocation (BA). This provided an effective method of calculating the actual cost of a single view and a single click on the CTA. The following formulas were used.

\[
\text{Cost per View } \in \text{ (CPV)} = \frac{\text{Budget Allocation } \in \text{ (BA)}}{\text{Views}}
\]

\[
\text{Cost per Click } \in \text{ (CSC)} = \frac{\text{Budget Allocation } \in \text{ (BA)}}{\text{Clicks on CTA (CTA)}}
\]

4.3 Data analysis

Our analyses focused primarily on spotting meaningful differences between the two types of communication. These differences could be captured in two ways: by KPIs that referred to behavioural responses, such as the number of views, the number of interactions with the post and clicks on a CTA; and by KPIs that referred to efficiency in terms of the BA. Since every KPI relative to behavioural responses could be expressed as a frequency, we used chi-square statistics to test whether the differences in distributions were statistically significant and to estimate the effect sizes. Each test was set with two types of communication (videos) (emotional vs functional) as the Independent Variable (IV), and the different KPIs, expressed in frequency, as the Dependent Variables (DVs). The significance threshold was set at \( p < 0.05 \).

Regarding the first Facebook advertising campaign, we performed three chi-square tests on the following DVs: VR, ERI and CTAR. Regarding the Facebook A/B test, we performed two chi-square tests on the following DVs: VR and CTA/views.
Finally, for the Facebook A/B testing, additional descriptive analyses were conducted by computing the differences for each KPI between conditions and expressing them as relative percentage differences. Using this method, it is possible to obtain an approximate estimation of the benefits relative to the adoption of a specific type of communication. The following formula was used:

\[
\text{Relative change (X, Y)} = \frac{X - Y}{Y} \cdot 100
\]

Where \( Y \) (functional) is the reference to which \( X \) (emotional) is compared.

For instance, if a single view had a cost of €0.0126 in the emotional condition and €0.0147 in the functional condition (reference), this would translate into a relative cost of around −14% for the emotional content. It should be noted that this computation is not based on previous literature.

5. Results
The initial series of inferential analyses on the first Facebook campaign produced the following results. VR was significantly higher in the emotional compared to the functional condition [4.30 vs 4.16%; \( \chi^2 (2) = 30.14; p < 0.001; \phi = 0.004 \)], suggesting that the emotional videos had a greater likelihood of attracting and retaining the users’ attention for at least 30 s. ERI was also significantly higher in the emotional than the functional condition [5.03 vs 3.67%; \( \chi^2 (2) = 109.2; p < 0.001; \phi = 0.034 \)], suggesting that the emotional videos were more likely to trigger the users’ reactions in terms of likes, comments and shares. Finally, CTAR was significantly lower in the emotional versus the functional condition [11.14 vs 13.04%; \( \chi^2 (2) = 80.6; p < 0.001; \phi = 0.03 \)], suggesting that the functional videos were more likely to lead the users to search for additional information on the product (see Table 2 for a summary of the results).

The second series of inferential analyses on Facebook A/B testing yielded the following results. TPR showed no significant difference between the emotional and functional conditions [7.26 vs 7.11%; \( \chi^2 (2) = 2.16; p = 0.14; \phi = 0.004 \)]. While this result would appear to contradict the previously reported result, it is worth noting that view rate is still greater in the emotional compared to the functional condition and that the lack of significance may be due to the sample size, which was smaller for the A/B testing than for the previous campaign (total impressions: 257,142 vs 2,303,534). Finally, CTA/views was significantly lower in the emotional condition than in the functional condition [6.74 vs 7.50%; \( \chi^2 (2) = 3.95; p = 0.047; \phi = 0.015 \)], thereby confirming that functional videos have a greater likelihood of leading

<table>
<thead>
<tr>
<th>Metrics and KPIs</th>
<th>Emotional videos</th>
<th>Functional videos</th>
<th>( \chi^2; p; \phi )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impressions (Imp)</td>
<td>1,018,766</td>
<td>1,284,768</td>
<td></td>
</tr>
<tr>
<td>Views (Vie)</td>
<td>43,848</td>
<td>53,415</td>
<td></td>
</tr>
<tr>
<td>Visualisation Rate (VR)</td>
<td>4.30%</td>
<td>4.16%</td>
<td>30.14; &lt; 0.001; 0.004</td>
</tr>
<tr>
<td># Likes (L)</td>
<td>1,907</td>
<td>1,855</td>
<td></td>
</tr>
<tr>
<td># Comments (Co)</td>
<td>183</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td># Shares (Sh)</td>
<td>116</td>
<td>64</td>
<td></td>
</tr>
<tr>
<td>Total interactions (L + Co + Sh)</td>
<td>2,206</td>
<td>1,959</td>
<td></td>
</tr>
<tr>
<td>Engagement Rate Index (ERI)</td>
<td>5.03%</td>
<td>3.67%</td>
<td>109.2; &lt; 0.001; 0.034</td>
</tr>
<tr>
<td># Clicks on CTA (CTA)</td>
<td>4,886</td>
<td>6,963</td>
<td></td>
</tr>
<tr>
<td>CTA Rate (CTAR)</td>
<td>11.14%</td>
<td>13.04%</td>
<td>80.6; &lt; 0.001; 0.03</td>
</tr>
</tbody>
</table>

Table 2. Descriptive statistics and chi-square test results referred to the overall Facebook campaign
users to search for more information about the product (see Table 3 for a summary of the results).

The descriptive analyses revealed the following results. With a BA of +13% for the emotional condition (compared to the functional condition), the following relative advantages are identified in terms of behavioural responses: +14% Impressions; +16% TP; +2% VR; +4% CTA. There is a disadvantage in the form of −10% CTA/views. Finally, assuming no differences in BA, the following relative advantages are identified for the efficiency in terms of costs: −14% CTP; −4% CSC (see Table 4 for a summary of the results).

6. Discussion

Family companies, especially those in the B2B segment, typically focus on personal relationships and informal interrelationships with customers and other stakeholders when running and developing the business (Steinerowska-Streb and Wziatke-Staśko, 2019). As such, they mostly neglect to build and implement marketing strategies aimed at exploiting other channels, such as digital ones. While it is fundamental for these businesses to develop and nurture good personal relationships since these are the bedrock of a powerful corporate image, which in turn is the flywheel that increases customer loyalty (Tran et al., 2015), digital marketing could be a very important lever with which to increase engagement, consequently, brand awareness, and to educate the audience, thus helping B2B family companies to grow the initial part of the sales funnel. Overall, this study shows that videos with emotional content generate different reactions from the audience compared to videos with functional content. More specifically, while affective contents could be fruitfully employed in optimising

<table>
<thead>
<tr>
<th>Metrics and KPIs</th>
<th>Emotional video</th>
<th>Functional video</th>
<th>$\chi^2$; $p$; $\phi$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impressions (Imp)</td>
<td>144,717</td>
<td>112,425</td>
<td></td>
</tr>
<tr>
<td>Views (V)</td>
<td>10,501</td>
<td>7,988</td>
<td></td>
</tr>
<tr>
<td>Views Rate (VR)</td>
<td>7.26%</td>
<td>7.11%</td>
<td>2.16; 0.141; 0.004</td>
</tr>
<tr>
<td>Budget Allocation $\varepsilon$ (BA)</td>
<td>132.77</td>
<td>117.23</td>
<td></td>
</tr>
<tr>
<td>Cost per View $\varepsilon$ (CPV)</td>
<td>0.0126</td>
<td>0.0147</td>
<td></td>
</tr>
<tr>
<td># Clicks on CTA (CTA)</td>
<td>708</td>
<td>599</td>
<td></td>
</tr>
<tr>
<td>CTA/View</td>
<td>6.74%</td>
<td>7.50%</td>
<td>3.95; 0.0468; 0.015</td>
</tr>
<tr>
<td>Cost per Click $\varepsilon$ (CPC)</td>
<td>0.19</td>
<td>0.20</td>
<td></td>
</tr>
</tbody>
</table>

**Table 3.** Descriptive statistics and chi-square test results referred to the overall Facebook A/B testing

<table>
<thead>
<tr>
<th>Metrics and KPIs</th>
<th>Relative percentage differences of the emotional condition compared to the functional condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impressions (Imp)$^{[1]}$</td>
<td>+14%</td>
</tr>
<tr>
<td>Views (V)$^{[1]}$</td>
<td>+16%</td>
</tr>
<tr>
<td>Views Rate (VR)</td>
<td>+2%</td>
</tr>
<tr>
<td>Budget Allocation $\varepsilon$ (BA)</td>
<td>+13%</td>
</tr>
<tr>
<td>Cost per View $\varepsilon$ (CPV)</td>
<td>−14%</td>
</tr>
<tr>
<td># Clicks on CTA (CTA)$^{[1]}$</td>
<td>+4%</td>
</tr>
<tr>
<td>CTA/View</td>
<td>−10%</td>
</tr>
<tr>
<td>Cost per Click $\varepsilon$ (CPC)</td>
<td>−4%</td>
</tr>
</tbody>
</table>

**Table 4.** Descriptive statistics of the variation of metrics and KPIs in the emotional condition relatively to the functional condition

**Note(s):** Variations are expressed as relative percentage differences. These results refer to Facebook A/B testing.
the circulation of the contents (and the marketing investments) through an increased level of engagement, thus indirectly enhancing brand awareness, functional content could be effectively deployed to attract people that already know the company and wish to learn more details about its products and services. Affective content was found to generate more passive behaviours, such as views, as well as active behaviours expressed in the form of likes, comments and shares. These main results are particularly interesting since a higher level of engagement fosters the circulation of content on Facebook, generating a return in terms of brand awareness. On the other hand, functional videos induced people to search for more information about the advertised products, clicking on “discover more”, which is the CTA included in the sponsored posts. This result is in line with Dolan et al. (2019), who confirmed that the type of message encourages specific user behaviours, that is, rational appeals have a superior effect in terms of facilitating active engagement among SM users, whereas emotional appeals facilitate passive rather than highly active engagement behaviour, despite the social and interactive nature of the digital media landscape. Of note, this information can be used strategically, depending on the objective of a campaign. For example, if the aim is to spread general awareness about a new line of product launched by the company, it would be recommended to produce emotional advertising material, to prompt more interaction from the audience and optimise the circulation of the content. While, if the objective is to develop a stronger and more specific awareness and engage users that are primarily instrumental-driven and that want to learn more about the new product line, sharing functional content would be more effective, as this type of content requires the user to address a more careful attention to the rational set of considerations, elaborating them using System 2 processing (Swani et al., 2014; Gilliland and Johnston, 1997).

Furthermore, the results of the A/B test enabled us to replicate the findings reported above in a more controlled way. Affective content seems to be the best choice for increasing the content’s circulation among the audience. The test confirmed that the functional content achieved a superior CTA rate than the emotional content. However, analysing the costs per click, the emotional content demonstrated a higher level of efficiency. This probably reflects the fact that as more content is generated, the more it circulates on Facebook, thereby lowering all unitary costs related to the promotion. Specifically, the affective video obtained a larger number of impressions than the functional video. This generated a positive “waterfall” effect that impacted directly on views, leading to an overall cost reduction per view and even per CTA. These data show that, although we can safely conclude that both messages are effective in reaching goals related to views, the affective messages seem to perform better in terms of overall efficiency.

Finally, we wish to discuss the meaning of our results in terms of effect size. The analysis of a great number of observations inflates the likelihood of reaching statistical significance, which means even the smallest effect can be detected. In reality, traditional social-science research uses small samples (Bertamini and Munafò, 2012; Button et al., 2013), thus requiring large effect sizes to reach statistical significance. As for other similar studies, in our case, it is necessary to overcome the problem of statistical significance and effect sizes and focus on the meaning and practical implications of the results. On this matter, Cortina and Landis (2009) identified three alternative conditions that could be evaluated when a large amount of data is analysed (Cortina and Landis, 2009). The condition which is particularly important for our study is the practical impact of the cumulative consequences of the effects found here. In the first Facebook campaign, the comparison of the ERI between the affective and functional videos showed how the affective contents guaranteed a rather large relative increase in the index. This would translate into a more effective circulation of the content on the platform for the same budget. Concurrently, the campaign analysis showed a CTAR in favour of the functional videos, which could have various implications. For a B2B marketing department seeking to optimise content on Facebook, a more effective strategy could be to allocate
resources to the production and sponsorship of affective videos, to maximise the resources invested. The higher the ERI, the greater the circulation of the content on Facebook, thereby lowering the unitary cost per interaction and helping to increase brand awareness. Meanwhile, if the objective is to stimulate SM users to obtain more information about products and services, then producing and sponsoring functional videos could be the right option, knowing that the results will be lower in terms of ERI but with a greater CTAR. The results of the A/B test confirmed these recommendations.

A similar pattern of results across the two different experiments strengthens the robustness of our findings and their predictive power, at least in the specific context of this case study.

### 7. Theoretical and practical implications

By linking family firm research with B2B activities and marketing communication research, this study contributes to both theory and practice across different disciplines.

First, the findings add novelty to the existing research by family business scholars on digital communication which, to date, has focused mainly on understanding how family businesses communicate their family business brand (i.e. Astrachan and Astrachan, 2015; Botero et al., 2013) and the perceptions of stakeholders such as customers and employees about the “family business status” (Beck and Prügl, 2015; Beck, 2016). The study contributes to the field of marketing and brand management by examining different informational cues (emotional vs functional) which, although acting differently on the users’ processing and decision-making, help to constitute a specific brand image in the minds of consumers. Despite the substantial influence of dual-process theories (such as ELM) in consumer research, these have been rarely investigated in B2B family business research (Yuan et al., 2021). If traditionally, marketing and advertising strategies in B2C have been primarily and effectively focused on closely appealing to System 1, the same can hardly be said for the B2B. Our results, however, by including two types determinants (affective-based and cognitive-based) at the core of the dual-process theories – which guided the research question and provided suitable explanations for the observed results – provide evidence of the significance of affective factors also in B2B processes, and thus enrich the still relatively unexplored but growing body of research that postulates the important role of the consumer’s heart in addition to their mind in the B2B industry (Pandey and Mookerjee, 2018). In this regard, by incorporating such psychological and behavioural theories into digital strategies, our research extends both the consumer behaviour literature and the information processing literature applied to marketing information management. To the best of our knowledge, this is the first study to have demonstrated that – in line with the dual-process theories arguing that affective factors (the emotional dimension) and rational and thinking factors (the cognitive dimension) play instrumental roles in individuals’ decision-making (Liang et al., 2019) – the effectiveness of communicating a B2B brand and its products can differ according to the type of information cues provided, which can lead B2B family firms to vary their strategic decisions on how to disclose their company on SM.

From a managerial perspective, the study supports the idea that B2B companies should not focus solely on actively communicating their family business brand in their communication efforts on SM (Botero et al., 2019). The study supports practitioners by indicating that the information communicated as part of the brand in B2B contexts should be goal-based and adapted to the specific needs and objectives of the digital strategy. Of note, affective content generates more views, likes, comments and shares, making this type of content particularly interesting for use in optimising content circulation and increasing the level of engagement. Functional content induces people to search for more information about the advertised products and click on “discover more”, thereby making this content beneficial.
for attracting people that may already know the company and who wish to learn more about its products and services. This could help to foster the personal relationships that B2B family businesses have with their customers and prospects. For example, for a salesman, it would be easier to talk with a potential customer who already knows the company and its products than with someone who has never heard of it.

A very current practical implication for marketing managers in family firms concerns the impact of the Covid-19 pandemic. While the pandemic has limited the potential to travel and meet customers as frequently as in the past, exploiting digital channels to retain contacts, fostering the company’s presence in the minds of customers and attracting new people can offer convenient ways of both maintaining and growing the business, especially given that certain structural changes are expected to remain in place after the pandemic.

As a final remark, from a strict managerial perspective, our study provides empirical support for the effectiveness of evidence-based practice and evidence-based management in family businesses (Rynes and Bartunek, 2017). Reprising Barends et al. (2014), the above-mentioned process touches upon three crucial elements of evidence-based management: aggregating evidence (the company’s products possesses and conveys both emotional and functional attributes), applying the evidence in decision-making (crafting alternative communication strategies), and assessing the outcomes of the previous steps (measuring the effects of alternative communication strategies). Thus, the insights from this study, which emphasise functional and emotional components of users’ perceptions toward the company and its products in terms of effects of both types of functional and emotional communication, if properly integrated with managerial practice, research principles and theoretical knowledge can be used to both uncover new possibilities in marketing strategy and better predict expected outcomes.

8. Limitations and future studies
Before any extensive generalisations can be drawn from our findings, the limitations of our study must be considered. One such limitation concerns the sample. On the one hand, this was uncontrolled compared to laboratory experiments. On the other hand, however, it translated into greater ecological and external validity for the study. The study was conducted in Italy, which has unique social and cultural characteristics, especially concerning family businesses. Thus, caution is needed when trying to generalise the findings to other countries. National culture may play an important role in audience response to different kinds of advertising messages; future research should therefore look into different cultures and countries (Anggadwita et al., 2019). This study relates to a family B2B company that combines a credence service (agronomic consultancy) with an experience one (plant biostimulants); therefore, further studies may seek to understand how emotional and functional contents work in other markets and industries. In addition, the data acquired in this study refer only to Facebook ads. Future research may wish to explore the effects of the two kinds of messages (emotional and functional) on other SM platforms (including, for example, popular new platforms such as Instagram) and other channels used in marketing. In this study, contrary to the stream of research on marketing communication in family firms, which has mostly investigated an active and explicit promotion of the family business nature, the stimuli adopted here did not emphasise the family-owned status of the company, thus following what has been termed “dormant family business branding” (Botero et al., 2019). Future research could explore the effects of further differentiation among stimuli by including and comparing more “family-owned” and “family-run” fine-grained informational cues. Finally, in this study, a video was used as the stimuli to convey an emotional or a functional theme. The interpretation of our results is therefore subject to this choice while still representing a valid
and widely used type of online content that is shared on SM corporate pages. Future research may wish to consider testing different types of visual or textual content.

References


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