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Web marketing in agri-food industry: Challenges and opportunities

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ABSTRACT

Background: Non-technological innovations in marketing are key drivers of competitive advantage of agri-food companies. The progressive and incessant affirmation of the Internet in the world economic panorama imposes the overcoming of the traditional models of marketing. The agri-food companies, in this new context, must think of themselves in the first place, mainly as a provider of information, and must be aware that it is facing a new type of customer, which becomes an active element of the marketing process. In recent years, agri-food companies have started processes of adaptation of their strategic and operational marketing activities with the aim of progressively integrating digital systems and exploiting their potential.

Scope and approach: The aim of our paper is to analyze the relevance of innovations in marketing for agri-food companies starting from a literature review of web marketing. Specifically, our review is based on a database of over 700 articles from marketing and business journals, covering a period of over 20 years. It goes from the first web marketing publications of the last century to the most recent writings. The review examines the internet marketing literature in order to determine how it has evolved and to provide a comprehensive model useful to evidence the relevance of non-technological innovation for agri-food companies.

Key findings and conclusions: Based on these results, we developed a comprehensive model including all the main aspects related to web marketing. Theoretical model has been then contextualized in the food industry, in order to understand how web marketing works in such a context. Some key examples are described in order to provide practical evidence.

1. Introduction

According to the classical interpretation, marketing is defined as the complex of activities of an agri-food company that range from the adoption of a product or service to their use by the buyer (Deepak & Jeyakumar, 2019). However, it is difficult to univocally define the concept of marketing, probably because in every age and competitive context marketing evolves and changes in theory and practice. It follows that the difficulty in identifying a single definition is closely linked to the evolution of the reference context of the market, the agri-food company, the technologies in which, over time, the discipline has found itself operating, adapting (Chandra, 2019). Despite the theoretical and practical difficulties encountered in trying to shed full light on the concept and role of marketing, it is still possible to find an evolutionary path of marketing as a discipline, which sees the progressive development from a classic to a modern paradigm.

A significant difference between the classical and the modern interpretation is that the former is based exclusively on the model of innovation market-pull, which provides for the placing on the market only of products whose need has been clearly expressed by customers (e.g., Henson, 1995; Linnemann et al., 2006; MacFie, 2007), while the latter also includes the innovation technology-push, i.e. the introduction into the market of products and services that surprise customers either because they cannot express the need or because they do not imagine that they can be realized (Galati et al., 2016). A strategy that, although presenting obvious risks connected to a lack of acceptance by the market, characterizes the current phenomena of break with the past that are occurring frequently and with resounding results in terms of profitability for businesses and, in the case of success, of real value transmitted to customers and the entire social fabric, thanks to the increasingly widespread spread of digital technology, and its use every day more familiar to a growing number of individuals in the world. In particular, since the development of the World Wide Web (WWW) on the Internet in the early 1990s, an increasing number of companies started using the WWW as a new marketing channel (Jalilvand et al., 2011). The progressive and incessant affirmation of the Internet in the world economic panorama, imposes the overcoming of the traditional models of marketing; the same techniques of marketing that make use

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of the Web will be therefore very different from those applied to the traditional media (Sparkes & Thomas, 2001). The Internet itself is just one of the digital media available today, alongside e-mails and social networks, with which everyone can interface anytime, anywhere, thanks to a large number of devices. The Internet and digital systems in general are gradually being integrated with physical systems, which have traditionally been closer to consumers.

A case in point in such a context is that of the mobile payment-based consumer industry now emerging in the Chinese market. Indeed, recently China is steadily marching toward a cashless society by the introduction of QR code-backed payments into the daily habits of consumers for purchases in apparel stores to supermarkets to convenience stores. According to a survey, 92% of people in China's largest cities use Wechat Pay or Alipay as their main means of payment. Also rural population (specifically, its 47%) use mobile payments very regularly. In 2018, around 83% of all payments were made via mobile payment modes. This way of payment grew in 2019 by 10%. Two main factors can be identified at the basis of its success: firstly, China is a mobile-first market, meaning most internet users' first device was a mobile phone; secondly, credit card ownership was low when mobile options Alipay and WeChat Pay were first introduced.

For some time, there had been a widespread view that the internet would cannibalize and replace all traditional ways of doing business. In many cases, the Internet integrates rather than cannibalizes traditional business activities and modes of competition. Virtual activities do not completely eliminate the need to carry out physical activities, but rather tend to amplify their cruciality. The Internet also creates new opportunities to more efficiently meet customer needs (Constantinides & Fountain, 2008). The revolution has not only been technological, but also cultural. In the last decades of the last century, people have felt the need for different ways of expressing themselves and relating. Digital systems have intercepted this need and provided the technology to meet it (Bruhn, 2008).

One of the most radical changes is the fact that the exchange of information is becoming more and more decisive in the market, even more than the exchange of goods (e.g., Bruhn & Mason, 2002; Caporale & Monteleone, 2004). There are about 3.77 billion Internet users in the world and almost 2 billion people working on various social networks and messaging applications. Thanks to computers, tablets and smartphones, all these individuals are able to connect to the network anytime and anywhere to obtain and provide information, interact and exchange goods, services and opinions in a much faster, cheaper and more conscious than before (Calantone & Vickery, 2010).

Consumers are less and less the weaker part of the exchange, thanks to the huge amount of information they can easily access at reduced costs. This increases their awareness of the relative value of the various offers (e.g., Gunes & Tekin, 2006). They expect to be able to choose from a wide range of more personalized products and services, comparing prices from different manufacturers and exchanging views with other consumers around the world. Consumers can access an increasing amount of information with decreasing time and cost, and transaction costs are reduced. The traditional limited rationality of the consumer gradually leaves room for greater awareness. Digital systems have changed consumers' purchasing behavior by providing them with more accurate, real-time information on prices, product availability, variants, delivery methods and times (e.g., Bruhn, 2007; Grankvist & Biel, 2001). The context in which agri-food companies operate has been characterized, in the last decades, by changes and innovations that have inevitably changed the way they operate (Caiazza & Volpe, 2012). Factors such as globalization (Sterns & Peterson, 2001), innovation (Avermaete et al., 2004; Caiazza, 2015; Caiazza et al., 2014; Stewart-Knox & Mitchell, 2003), internationalization (Ayouz & Remaud, 2003; Bertolini & Giovannetti, 2006; Pritchard & Rama, 2005, pp. 219–252; Testa, 2011), competitiveness (Caiazza & Volpe, 2013, 2014; Sahay et al., 2006), technology (Mohezar & Nor, 2014), new consumers' preferences (Jandt, 2006; Khan et al., 2013; Ronteltap et al., 2007) as well as requirements from the other actors of the supply chain (Kirezieva et al., 2013; Leat et al., 1998; Vermeiren et al., 1999), are just a few examples of factors that have changed the way of being and working in the agri-food sector.

In addition, also for companies operating in this context the usage of Internet has grown very fast. Millions of people use the Internet to buy food, to compare food prices and characteristics, etc. Food is one of the most widely shared content on social media. Therefore, web marketing for the agri-food sector is a great opportunity for companies to grow. The food industry is at the forefront of innovation in the interactive marketing arena: companies operating in this industry use to work with ad agencies and high-tech specialists to design campaigns to engage people with social networks, mobile phones, and virtual worlds. A number of case studies exist evidencing the relevance of the topic. As first, evidence exist showing how major brands have significantly increased their spending for web marketing, showing a double or triple-digit growth. To cite only some, Dr. Pepper (+427.9%), Kellogg's (+225.3%), Coca-Cola's (+163%), PepsiCo (+68.6%) and so on (Montgomery et al., 2011). Similarly, aiming at a business growing, other companies changed from a traditional way to sell their products to a web-based one by means of e-commerce, that allowed them also to reach new consumers (https://www.netstrategy.it/case-study).

The agri-food company, in this new context, must think of itself in the first place, mainly as a provider of information, and must be aware that it is facing a new type of customer, which becomes an active element of the marketing process. Research stressed how straightforward it is to measure the influence of any product's characteristics on a consumer's perception of the product itself, that in turn affects his decision to use (Booth, 2014) as well as on his willingness to pay (Sillani & Nassivera, 2015). Consequently, it is the information, content and services offered by the website that attract the consumer to the agri-food company. On the other hand, it is the Internet user who decides which sites to visit based on the content he is interested in and how and when to use the information (e.g., Huotilainen & Tuorila, 2005; Olsen et al., 2010). The characteristics of the medium therefore impose a total reversal of the marketing approach that is no longer selective (push), but attractive (pull). Doing marketing on the web means, first of all, placing the consumer at the center of attention before, during and after the purchasing process; establishing a dialogue that is as sincere and loyal as possible, in which the sale is not the primary objective but the natural consequence of the relationship established; abandoning a quantitative logic in favor of a qualitative dimension. The path from a business model centered on sales to a consumer-centric one requires a significant change in the corporate culture (Sheth et al., 2000).

As a consequence of these changes, also the new food product development process has to be changed. As stressed in the literature. To succeed in a more and more competitive context, agri-food companies have to develop new successful products values by consumers (Jacobsen et al., 2014). At the beginning of the new product development process there are the needs of the customer, which are understood by the agri-food company through market analysis. The information that derives from it, gives the impulse to the conception and production of products or services that satisfy the identified needs. The agri-food company sets a price, promotes a product or service by informing customers of its characteristics and distributes it on the market. In a modern perspective, however, marketing goes beyond the confines of the agri-food company and the monetary exchange, and extends its range of action to other subjects (Saguy & Sirotinskaya, 2014; Stanton & Burkink, 2008).

2. Objectives and method

The aim of our paper is twofold: first, to provide a global view of the current state of the literature on web marketing and how it has changed, and second to investigate how web marketing has been used in the food context. Specifically, our review is based on a database of

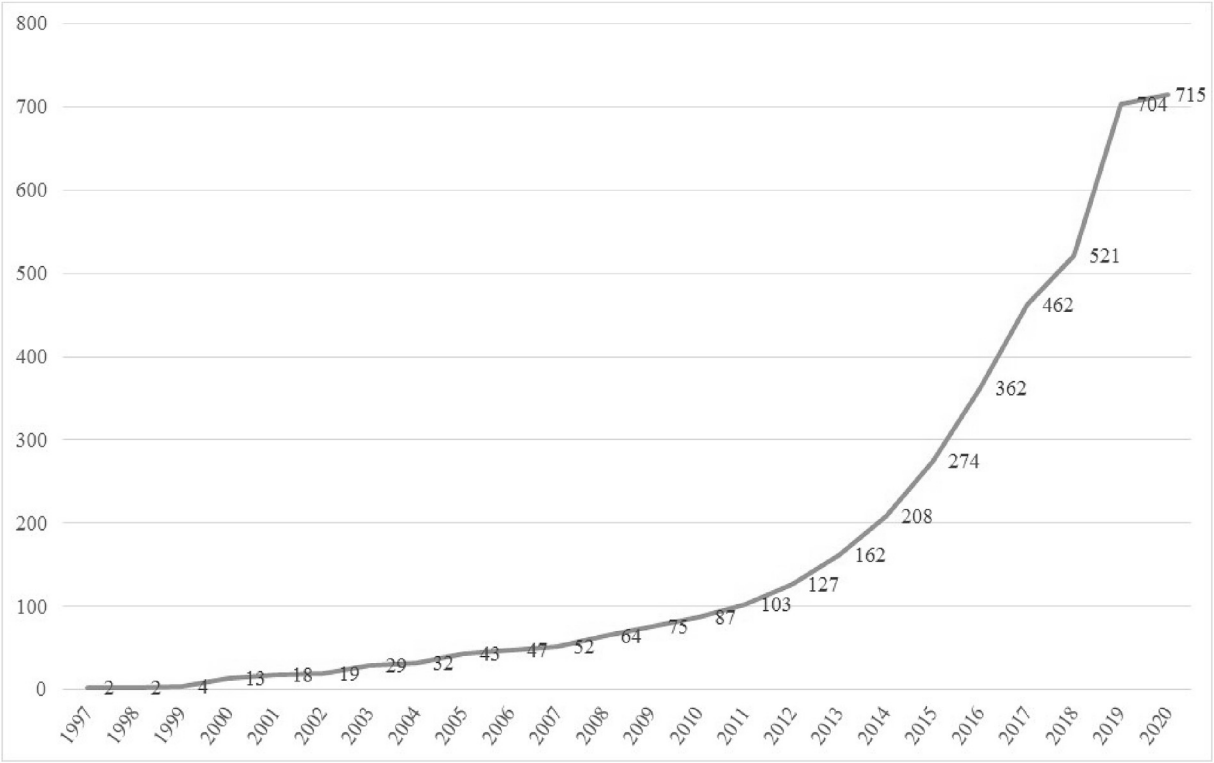

Fig. 1. The publication trends since 1997.

over 700 articles from marketing and business journals, covering a period of over 20 years, from the first web marketing publications of the last century to the most recent writings. The review examines the internet marketing literature in order to determine how it has evolved in terms of volumes, content and ways of use, seeking to provide a comprehensive and complete picture of the state of the art of web marketing literature. To do this, we have carried out a systematic review of the literature through text mining. Based on these results, we developed a comprehensive model including all the main aspects related to web marketing. This model has been then contextualized in the food industry, in order to understand how web marketing works in such a context. Some key examples will be described in order to provide practical evidence.

2.1. Text mining

Text Mining (e.g., Delen & Crossland, 2008) is a process that starts from a set of unstructured data that can be linked to texts of various kinds (press agencies, web pages, e-mails, articles, etc.) and to a body of documents to which Data Mining techniques are applied. Even if this methodology can be considered as a particular case of Data Mining, it is necessary to distinguish the two concepts in order to fully understand the substance of the treatment. Data Mining is a process of extracting quantitative data stored in databases, sorted according to records structured by categorical, ordinal and continuous variables. It is essential when the traditional techniques of analysis are not suitable for reasons of quantity, high dimensionality and heterogeneity of the data. However, it is not able to read and understand a literary corpus, such as the one at our disposal, which is presented, instead, in the form of natural language and unstructured documents, since the articles are made up of words and not analytical data. Conversely, Text Mining allows to "number" the unstructured text document, obtaining a quantitative analysis.

Thanks to this methodology it has been possible to objectively take into consideration all the valid contributions, made available by the corpus, for the categorization of the articles according to schemes and sets pertinent to the case. Thanks to the information extracted from the database, consisting of the abstracts offered by the Internet, it was possible to compare the various publications on web marketing in the period from 1997 to 2020. The main topics and sub-topics have been identified, with all their technical reports and their differences or affinities: the automatic process guaranteed by the computer program allows us not to have to worry about having neglected or ignored an important reference.

3. Literature review on web marketing

3.1. Descriptive analysis

In the research conducted, 715 articles were examined. As first, we analyzed the data relating to publication trends during the period under analysis (1997-2020), with reference to the number (frequency) of publications. Then, our analysis focused on where these articles have found space and finally the focus will be on the analysis of key-words, key concepts and main topics that have been indicated by the author (or by those who published the article for him).

Of the 715 articles examined, 441 have been published since 2015, accounting for 61.67% of the total. If we consider a time frame up to 2013, the articles under examination are 553, or 77.34% and if we extend up to 2008 we reach a number of 651 articles (91.05%), testifying to the fact that the subject has developed mainly in the last decade and at the same time in this time frame has increased attention to the level of publications in specialized journals and not. In general, attention to web marketing seems to be a prerogative of the new millennium (obviously for reasons of technological development): in fact, only 4 articles of our research were published in the last century, a meagre 0.77%.

The number of articles published annually has seen a significant increase from 2010 onwards. Trying to simulate the total number of articles on the basis of the data in possession, we would arrive at a

result of growth of about 10% compared to the year 2017, in a constant growth trend (Fig. 1).

The cumulative number of articles year after year shows what we pointed out at the beginning of the analysis: the number of publications has increased considerably in the new decade.

Of the 715 articles under analysis, 207 – about 30% - belong to journals dealing with Marketing in its most varied forms. The articles that have found space in magazines and publications specializing in the network, the Internet and technology in the broadest sense are 107, or 15% of the total, a number lower than previously found but still significant out of the total.

The journal with the most publications on the subject in our analysis is the *Journal of Research in Interactive Marketing*, with 33 articles (4.6% of the total), followed by the Journal of Business Research, with 13 articles (1.8% of the total), and the *Journal of direct, data and digital marketing practice* with 7 articles (1%).

From these considerations it can be deduced that there is a plurality of sources within the literature that concern the subject we are dealing with: although the ranking shows how the highest numbers of publications are found in the specialized literature on the subject so that about half of the articles we analyze come from publications that do not have as their main prerogative that of the world of web marketing.

Leaving aside the keywords web and marketing that are clearly dominant in our research, it is interesting to note that the literature reserves a considerable space for the consumer in its different declinations: 146 articles (20%) are in fact those who are actually the recipients of marketing campaigns. It should also be noted, however, that this trend has not undergone substantial changes in the time frame considered: the percentage of articles having as keywords those relating to the consumer in the period 1997-2010, is around 21%.

Another key concept that is expected to find ample space in publications related to web marketing is that of "Social": in the period 2010-2018 the explosion of online communities is witnessed by the numbers of our research, which indicate that 75.25% of articles focuses mainly on the world of social networks and social media in general, a value that rises up to 84% if we consider the publications of the last three years. This trend is destined to be confirmed and probably progressively accentuated.

In the same way, it is not surprising, looking back, that this is a trend of the new decade: the first article with Social Media as keywords was published in 2008.

Another topic at the center of the debate that has seen growing attention in the new decade is that linked to the concept of brand, which in truth is going to tie a double thread to that of trust and loyalty of the consumer: almost a quarter of the articles subject of our analysis gravitates around this concept.

Two other areas on which the articles analyzed focus are those that place the emphasis on the strategy and analytical models used in the field of web marketing on the one hand, on the media and expressive marketing on the other hand.

The data concerning the main macro-areas of keywords, their declensions in terms of number of publications, are summarized in the following Table 1.

Another interesting fact concerns the birth of some terminologies, such as user-generated content - i.e. the content created by the users themselves using the platform - that find space in 21 of the articles published after 2018.

3.2. Critical analysis

The software used for the clustering process has given us back 4 clusters of articles on which we will dwell, which are summarized below the label, the keywords and the number of items (Table 2).

3.2.1. Cluster 1: Web analytics

The first cluster is the largest of the 4 clusters: in fact, there are 308 articles that refer to the Web Analytics label. This concept refers to the detection and tracking of user behavior by software, for statistical and strategic purposes, and may be generally defined as "*the assessment of a variety of data, including web traffic, web-based transactions, web server performance, usability studies, user-submitted information and related sources to help create a generalized understanding of the online visitor experience*" (Pakkala et al., 2012). The usefulness of this process is based on the belief that, in predicting consumer behavior, it is reasonable to assume a stable link between "offline" attitudes and online activity, and that today an increasing number of consumers rely on online content when they want to have accurate information about a particular brand. It is also an analysis that allows overcoming a quick and superficial approach, for example, in the study of brand sentiment, allowing to deepen the standard classification of the positive, negative and neutral judgement of the user. This simple scale is not able to provide more precise information about the polarity of positive or negative attitudes towards a brand or even about the reasons for such approaches (e.g., De Veirman et al., 2017; Ferreira & Barbosa, 2017; Sohn et al., 2017).

By focusing only on the number of positive and negative evaluations, a brand manager is not able to determine which characteristics of the brand lead to a certain type of evaluation, hence the need for tools, which are precisely those of Web Analytics, which allow to give justification and well-founded reasons for the sentiment (Mazloumian et al., 2013; Pakkala et al., 2012).

A large amount of information is collected, including:

- number of visits and unique visitors,
- relationship between new and old visitors,
- country of origin,
- type of access device (desktop vs. mobile),
- access and exit pages, and
- frequently visited pages.

but also more relevant data including:

- duration of visits,
- searched keywords,
- degree of success of the various types of campaigns (email vs. social media), and
- bounce rate.

The papers included in the cluster also provide some examples of

Table 1
The main macro-areas of keywords.

keywords area	main keywords	articles		trend	
		#	%	1997–2009	2010–2020
Consumer	customer, user, consumer, trust, loyalty	151	21%	21%	26%
Social media	social media, social network	329	46%	6%	79%
Strategy	strategy, model, systematic	58	7%	9%	12%
Brand	brand, brand engagement	112	14%	6%	24%
Communication	communication, presentation, visibility	85	7%	8%	13%

Table 2
The four clusters resulting from the critical analysis.

Cluster	Label	Keywords	# of papers
1	Web analytics	community, advertising, twitter, analytics, small	308
2	Web 2.0	hotel, relationship, 2.0, loyalty, luxury	55
3	CRM	manage, strategy, CRM, word of mouth, metric	101
4	Brand equity	Content, engage, brand equity, message, virtual	251
			TOT = 715

web analytics application in the food industry. For example, Google Analytics were used in order to measure visitor statistics on three food composition websites (namely, in Denmark, Finland and Switzerland) (Pakkala et al., 2012). The results were about the number of visitors, the number of visits per day, page views, the average time on site, the device used to visit the websites, etc. Coca-Cola uses big data analytics to drive customer retention: for instance, in the year 2015, it built a digital-led loyalty program, thus allowing the match of consumers' expectation and ensuring the powerful of the marketing campaigns (Ransbotham, 2015). Finally, Amazon Fresh and Whole Foods is an example of how big data can help improve innovation and product development: indeed, Amazon by means of big data analytics has moved into a large market (Mathis & Tor, 2019).

3.2.2. Cluster 2: Web 2.0

The second cluster, which includes 55 articles, has been awarded the label of Web 2.0. This term means a second generation of websites, including community portals, wikis, communication sites that are focused on cooperation and mutual exchange of ideas and values (e.g., Fauser et al., 2011; Kim & Park, 2017). Singel (2005) defined the difference between the old and the new virtual environment as follows: "*Web 1.0 was commerce. Web 2.0 is people*".

The key concepts of the evolution brought by Web 2.0 are:

- site as a sharing platform,
- active user participation,
- self-improvement of the service (thanks to the contributions of users),
- focus on content,
- continuous beta (users become part of the quality assessment process and their input is the basis for future marketing developments), and
- development of a rich user experience.

Within the cluster, the topic of Web 2.0 is addressed from 3 different perspectives, namely: information, technology and community. If the creation and collection of information is still central, as in the "pre Web 2.0" era, it is the concept of community that has taken on a whole new importance (e.g., Clark et al., 2017): the main change lies precisely in the possibility of creating content, which has allowed us to overcome the clear distinction between the roles of the publisher and the reader. This has a twofold effect: on the one hand, consumers are more involved and partly relieve agri-food companies of the task of continuously promoting the product; on the other hand, the agri-food company loses some control over the content, with all the possible negative consequences of the case. That's why, while for users the development of Web 2.0 has mostly positive implications, agri-food companies are frightened by the idea of losing control over their content and give too much space to the audience of the Web (e.g., Adebanjo & Michaelides, 2010). It is the clash between firm-created and user-generated contents and their "coexistence" on the web that represents the heart of the debate within the world of Web 2.0.

The articles focus on the possible risks of this approach:

- paternity of publications and copyright,
- access to information by competitors,
- uncontrolled volume of negative reactions, and
- computer fraud.

Also in the case of Web 2.0, Coca-Cola may be cited as an example: indeed, it uses Web 2.0 to further its connection with consumers. Starting with blogs and video sharing, it is remarkable its social network/virtual world, *mycoke.com*, a site containing the virtual city "CC Metro", where users can make avatars of themselves, play games and socialize. Moreover, Coke drinkers can earn My Coke Rewards, for instance, music downloads and gifts, by entering a code printed on cans and bottles. In addition, other social networking initiatives include Facebook applications (e.g., Burn Alter-Ego) (Constantinides & Fountain, 2008). Similarly, Martini et al. (2014) described the co-creation project's journey of Barilla, based on a Web 2.0 platform: "In the Mill I Wish For" initiative (MIW).

3.2.3. Cluster 3: CRM

The third cluster includes articles that focus on the concept of Customer Relationship Management (CRM) and its evolution over time (e.g., McIntosh et al., 2010; Mohamad et al., 2014). CRM is a strategic approach to marketing supported by the theory of marketing relationships (Morgan & Hunt, 1994), which has been defined as "*a comprehensive process and strategy that allows an organization to identify, acquire and nurture a profitable customer base by building long-term relationships with it*". As we pointed out at the beginning, the world of web marketing has as its priority a management innovative and different from the traditional channels of communication of the relationship with the customer and the importance of CRM is to be read in this sense. The acronym CRM is also used in practice to define that category of software consisting of applications that help agri-food companies to manage, analyze and optimize customer relationships. These can be customized or "off-the-shelf".

In general, we distinguish between CRM:

- operational (function of automation of the phases of the relationship with the clientele): for example, in the context of sales support, the creation of a shared registry of contacts with the possibility for the sales force to access it to consult the commercial conditions, carry out analysis of historical sales and provide input for the forecast of sales for the future;
- analytical (data extraction from operational CRM, analysis and protracted study of client behavioral patterns); and
- collaborative (methodologies associated with customer communication channels).

The articles dedicated to this topic focus largely on new CRM technologies, applied to social media, which by nature facilitate relations with the consumer: here is the key concept of customer engagement, which was missing in previous CRM models. A correct implementation of CRM models has a positive impact on the performance of consumer relations, understood as the satisfaction and loyalty of consumers to an organization: elements that lead to greater competitiveness and more efficient services and support to the customer. It is a key concept both in business to business logic (in relations with companies) and in the case of business to consumer.

Among the 101 articles, some provides examples of CRM

application in the food industry. Noteworthy the future-oriented example of CRM adopted by the Swiss company Nestlè (Rezaeegiglo et al., 2014). The company, starting from the consideration that health problems are becoming an increasingly important issue, started producing in Japan healthy foods and drinks as a "personalized nutrition" supplied via the company's own online platform ("Nestlé Wellness Ambassadors"). With the help of its CRM and its online platform, the company gathers valuable digital health data on its users. They, in turn, obtain their DNA tested there and a home test kit, together with a customized nutritional analysis of all their meals realized with the help of artificial intelligence. In such a way, the company provides individual guidelines for a healthy nutrition and lifestyle.

3.2.4. Cluster 4: brand equity

The last cluster focuses on the concept of brand value (or brand equity), one of the fundamental intangible resources for an agri-food company (e.g., Iaia et al., 2017; Sturiale et al., 2017). The idea of increasing brand value is inherent in the concept itself of marketing and advertising, even in its original meaning and therefore with the traditional channels of communication (Kerin & Sethuraman, 1998; Paasovaara et al., 2012). The radical transformation of the world of media in the last decade has seen the birth of social media and blogs that have gradually become established on the net: the articles of the cluster we are analyzing focus on the role that these new channels of communication have in creating the value of a brand and on the differences and relationships with traditional channels. Both have a significant impact on brand equity, albeit with different meanings:

- traditional media have a greater impact on brand awareness, and
- new communication channels (primarily social media) strongly influence brand image and perception in the marketplace.

In addition, within the world of social media, firm-created and user-generated contents coexist (Aspasia & Ourania, 2015). Now the impact of the global exchange of information between consumers on social platforms can no longer be neglected, and it should therefore be rethought in a logic that no longer sees marketing communication as the exclusive prerogative of the agri-food company, but that on the contrary for the creation and improvement of value of a brand must necessarily take into account both contributions.

As an example, one of the most celebrated company's slogan is "*Dove c'è Barilla, c'è casa*" ("*Home is where there is Barilla*") (Pace et al., 2017). This slogan changes when used in foreign markets: for example, in the USA the company has preferred to use "*The choice of Italy*", in France "*Les pâtes preferées des Italiens*", and so on. Differences may be found also on the company's websites for the different countries. Indeed, the company payed attention to the target culture in order not to run into unwanted connotations or taboo issues, thus avoiding to damage their brand. The Barilla brand stands for Italian culture, and Italy stands for genuineness and authentic taste. Thus, to reinforce their brand by means of the web, instead of the traditional approach used in Italy, in other countries Barilla has focused on the concept of "Italianness".

4. The main pillars of web marketing in the food industry

Based on the results of our review, four main pillars of web marketing in the agri-food industry may be identified.

The first pillar is focused tracking of user behavior by software, for statistical and strategic purposes. In predicting consumer behavior, it is reasonable to assume a stable link between offline attitudes and online activity. With agri-food consumers increasingly expressing demands for personalized attention and services (e.g., Cardello et al., 2007; Costa-Fonta et al., 2008; Frewer et al., 1997; Frewer et al., 2003; Grunert et al., 2003), companies are using web marketing to deliver memorable, satisfying and relevant consumer experiences. Obviously, delivering the right consumer experiences will attract new consumers and boost the loyalty of existing ones. Optimizing consumer experiences trough web marketing is one way agri-food companies can tap this treasure trove of consumer information and engage with consumers in new ways. Specifically, they can use consumer information to continually shape their brand. In fact, forward-thinking companies will use information to encourage their consumers to contribute to and stimulate the brand's evolution. Information on costumers needs extend their brand relevance.

As part of their efforts to optimize consumer experiences, agri-food companies will have the opportunity to extend their offerings beyond the realm of products to include services. By taking advantage of the digitization of everything and the unprecedented understanding of consumer genomes, agri-food companies will finally be able to achieve the business to market dream of mass customization that adapt, evolve and pivot around the consumer experience, rather than only around visual brand consistency or product sales. At this aim become important also the second pillar, focused on new virtual environment based on second generation of websites, including community portals, wikis, communication sites that are focused on cooperation and mutual exchange of ideas and values.

The third pillar includes Customer Relationship Management (CRM) that is a strategic approach to marketing supported by the theory of marketing relationships, which has been defined as a comprehensive process and strategy that allows an organization to identify, acquire and nurture a profitable customer base by building long-term relationships with it. Agri-food companies need to push consumer experiences further to achieve consumer intimacy (CI). This means engaging with consumers in new ways to shape their experiences at every opportunity. In fact, leaders will help consumers become active participants in creating the intimacy that underpins loyalty and trust. consumer experiences plus consumer intimacy will be the winning formula for companies marketing in the new. As agri-food companies exploit consumer insights and advances in connected intelligence, leadership has to change. Because these services must continually evolve to meet consumers' changing expectations, the speed with which the marketing organization designs and deploys programs will take on new relevance. To achieve the change that is needed, at the speed required, chief marketing officers will need to create a living marketing organization in which everyone plays a role in brand revitalization and quickly adapts to drive better consumer experiences. Marketing tactics will be augmented with strategies designed to boost consumer engagement and spread an understanding of the brand and its essence.

The last pillar is focused on the concept of brand value (or brand equity), one of the fundamental intangible resources for an agri-food company. The idea of increasing brand value is inherent in the concept itself of marketing and advertising, even in its original meaning and therefore with the traditional channels of communication. At this aim, orchestration of external partners can be important (e.g., Bhagat & Dhar, 2011; Braun & Hadwiger, 2011; Islam & Habib, 2013; Kilgore et al., 2007; Milgate, 2001; Olsen et al., 2012; O'Keeffe, 1998; Xu & Beamon, 2006). The value of ecosystem collaborations will grow as marketing becomes more personalized. Ecosystem management is a clear area of opportunity (Rademakers & McKnight, 1998). Marketing leaders are steadily increasing their reliance on such players to take advantage of insights they might not be able to generate on their own. Creating an agile, best-in-class marketing team requires balancing human and analytical skills to create experiences that are both data-driven and empathetic.

5. Challenges and opportunities

Currently, advertising technologies, marketing technologies, ecommerce platforms, CRM systems, and sales and service applications operate in isolation. They will need to be integrated and then orchestrated to provide the most comprehensive view of the consumer (Fig. 2).

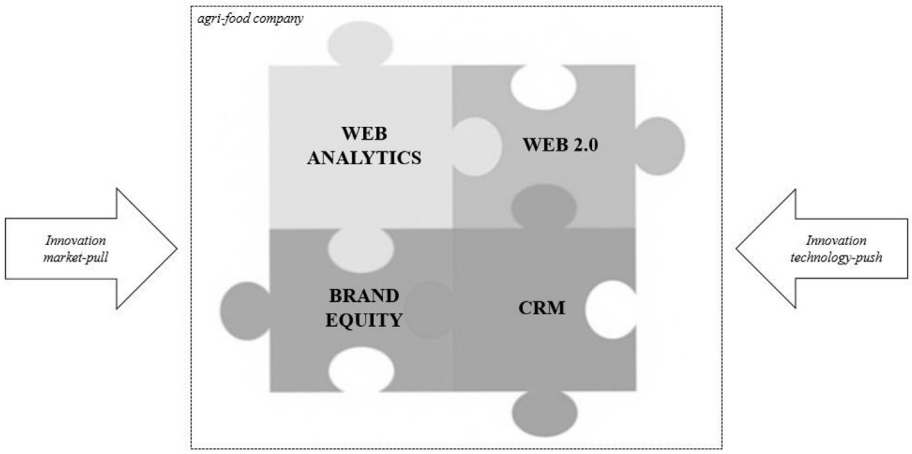

Fig. 2. The pillars of web marketing in the food industry.

Further, the complexity and volume of customer touchpoints, along with the proliferation of marketing technologies, will require agri-food companies to work with IT to create and manage a brand value. This lead to a better alignment between marketing and IT operations. Collaboration with IT will become increasingly important as agri-food companies rely more heavily on consumer data to strengthen consumer experiences and consumer intimacy. The value of analytics in the future will lie in its ability to help marketers predict consumer behaviors and create more accurate forecasts. Owning and effectively managing the data is key to knowing the consumer.

These considerations lead to the necessity to improve web marketing strategies in providing, in particular, better communication and right information to the consumers. The progressive establishment of these trends will not lead to the disappearance of traditional marketing, but it will necessarily have to be supplemented by new strategies aimed at building relationships with customers. Each business function and process must be closer to the consumer and be defined according to how he adds value to the relationship.

Practitioners and academics investigating these topics, have to take into account the different consumers' behavior. Indeed, their behavior varied by country, region, age and other factors. This imply that better research are needed, because a lack of in-depth analysis and comprehensive statistics in this regard still remains.

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