Crowdsourcing as production model that uses collective intelligence, the collaborative culture and the formation of communities

Luciano Augusto Toledo and Felix Hugo Aguero Diaz Leon

CCSA, Universidade Presbiteriana Mackenzie, Sao Paulo, Brazil

Abstract

Purpose – It has been verified that companies are using crowdsourcing to carry out tasks related with the market, concentrating on three main areas: product development, advertising and promotion and market research. This study aims to carry out qualitative research using the case study method. The analysis unit that will be used will be marketing activities based on crowdsourcing. Finally, the study subjects used to understand the phenomenon are Coca Cola, PepsiCo, Netflix and Amazon.

Design/methodology/approach – For this study, the decision was made to use the case study method due to its qualitative character. Thus, the analysis unit of the study is composed of the activities of the company investigated related to the activities of the marketing information system. For this study, a unique case study was used. The object companies were Coca Cola, PepsiCo, Netflix and Amazon.

Findings – A significant number of advantages are therefore perceived for companies that adopt mass collaboration practices in the research and development of products. The strategic importance of this concept for companies that launch themselves into these surprising endeavors is ever more clear and consolidated in their planning. It is up to those sectors that are responsible for communication to think of strategies that incorporate the collaborative work of consumers into their actions.

Research limitations/implications – The study presents some limitations that give rise to the opportunity to embark on future studies. As it is an exploratory study, there was no validation of causality between variables, which may diminish the empirical value of the findings. In this context, the sample is small and non-probabilistic, which on one hand made applying the interviews in the field study viable, but on the other does not enable the results to be generalized.

Practical implications – The transfer of power to crowds of consumers has led to a reduction in costs. This combination of innovative and cost reduction constitutes value innovation, a basic factor for customer retention, standing apart from the competition and obtaining appreciable results, thus reducing mortality.

Social implications – A collaborative action is an integrated marketing and communication action. In the same way, using bloggers to evaluate products today is a basic form of research and development, networking and communication with consumers, who become co-creators of products and services, as well as interlocutors with those responsible for corporate communication.

Originality/value – A significant number of advantages are therefore perceived for companies that adopt mass collaboration practices in the research and development of products. The strategic importance of this concept for companies that launch themselves into these surprising endeavors is even more clear and consolidated in their planning. It is up to those sectors that are responsible for communication to think of strategies that incorporate the collaborative work of consumers into their actions.

1. Introduction
From a marketing perspective, crowdsourcing creates the opportunity to interact with large groups of potential consumers (Toledo, 2016). Of course, motivational elements or gamification strategies are needed to keep participants interested and involved in the process. Also, via crowdsourcing, companies can drive the promotion of their brands through enthusiastic volunteers, outsourcing the creation of content to target segments, as well as collecting innovative ideas and solutions for the needs of the market (Eskenazi *et al.*, 2013; Libert & Spector, 2010). In the area of marketing intelligence, it is perceived that crowdsourcing enables data to be supplied and knowledge to be created for the marketing intelligence area, in particular impacting on its result: decision making based on market opinion

Given such context, the following research problem was outlined: how is crowdsourcing used by companies? The article has raised some notes about: marketing environment, crowdsourcing and the usage of crowdsourcing in the four companies considered in this scientific investigation.

2. Theoretical framework
The collaborative economy has emerged in this way, involving a system in which goods and services are shared and exchanged via trusted digital platforms, with a reputation for a better service being the at the core of buying and selling decisions. Thanks to these digital platforms, the barriers to mistrust have decreased, based on the usage of user profiles with evaluations and references that give rise to new ways of relating, exchanging, and monetizing economic goods in traditional business models (Leimeister, 2012; De Menezes, 2015).

The internet, GPS, the portability and sociability of new technologies, crowdsourcing, the open-house culture, the maker movement and the emergence of a new generation of citizens with a greater capacity and reach for impacting their environment via one click are just some of the technical and cultural components that have been taking root to consolidate a new model of exchange that is redefining the way of doing business and relationships through the exchanging of goods and services among citizens (Leimeister, 2012; De Menezes, 2015).

For this reason, the main value added by this new tendency for collaboration, besides financial profits, is the production and development of knowledge, since sharing can be seen as a starting point for new business models. The collaborative economy model can lead to personal benefits, both at an economic level and in terms of personal and intellectual growth, but it is subject to one limitation: the desires of the individual (Leimeister, 2012; De Menezes, 2015).

The true potential of this model lies in the integration of various people in the value creation process, both economic and social. By establishing that each individual can work in a different area of expertise in the economy, it is discovered that there is a prospective

infinity of possibilities for creation, innovation, and even financial empowerment in small, medium and large projects (Leimeister, 2012; De Menezes, 2015).

The immense growth in the collaborative economy in recent years, globally speaking, would not have been possible without technological development. The evolution of platforms that offer online market systems together with P2P technologies are determining factors that favor this model, guaranteeing an ecosystem in which exchanging goods and carrying out online transactions becomes as easy as inputting certain personal data and clicking a few times (Leimeister, 2012; De Menezes, 2015).

Named by TIME magazine in 2011 as one of the "10 ideas that will change the world", the collaborative economy has positioned itself today as the pinnacle of a new financial model. Thanks to changes in habit, we have come to be in possession of accessibility. Specifically, much of its structure is based on the application of new technologies to establish networks for exchanging, renting, and bidding, and communities created to divide goods, spaces, or services (Leimeister, 2012; De Menezes, 2015).

The figures for this phenomenon are even more surprising. Thousands of people who travel around the world stay in private properties using the Airbnb platform; millions of people use the services of Uber to reach their destinations; and almost half of the global population has an account with Spotify, which enables individuals to listen to an infinite amount of music online. According to Forbes, least year around US\$3,500m circulated globally within the collaborative economy, which represents a 25 per cent increase in relation to the transactions recorded in this sector in 2014. This model is covering even more sectors of society and, in particular, the day to day life of citizens. Airbnb already operates in 25,000 cities in 192 countries, where it offers more than 600 thousand places to stay, ranging from individual rooms to European castles. In turn, Uber is present in more than 100 cities in 45 different countries and is valued at more than US\$18,000m (Morschheuser *et al.*, 2016).

The growing concern about ecology and environmental health in the last decade has made people discover and incentivize a collaborative consumption that prioritizes the reuse of objects that no one longer uses, instead of acquiring new products (Leimeister, 2012; De Menezes, 2015).The future presents several challenges for the collaborative economy, since besides regulations and rules concerning the processes, there is a need to strengthen trust among those involved to continue taking firm steps towards sustainable development. This model works thanks to the empowered citizens who work together, but this collaboration requires the regeneration of trust in the people that surround us (Leimeister, 2012; De Menezes, 2015).

Marketing undoubtedly represents a fundamental component in the formulation and implementation of strategy, because strategic management has to permanently deal with an environment that is in constant change, in which two entities and forces stand out (Hooley, Saunders, & Piercy, 2001; Lambin, 2009): the market and the competition. This obliges organizations in competitive and aggressive environments to base their actions on a market-orientated philosophy. The relevance and pertinence of marketing in market-orientated organizations, which maintains a double focus between market and competition, can be highlighted via three roles or tasks that constitute the central point in the strategic procedure (Hooley *et al.*, 2001; Lambin, 2009).

The first role or task of marketing is to identify the characteristics, profiles, requirements and demands of the customers and effectively communicate and disseminate the information to the organization as a whole. The second role is to determine the competitive positioning to adjust the resources, capacities, and scopes of the organization to the diversified needs of the customers (Aaker and McLoughlin, 2010; Hooley *et al.*, 2001; Lambin, 2009). This task implies recognizing that the markets are heterogeneous; it is

therefore up to the organization to identify the segments that compose them, judge the level of attractiveness of each one of them, and at the same time analyze the competitive condition for attending to them. The analysis will determine the segmentation strategy that the organization will adopt, in the search to attend to its scopes in terms of growth and return. The third revealing role of the relevance and pertinence of the marketing in the competitive procedure relates to the task of implementing the strategy, which means aligning the organization's resources to plan and execute the delivery of value, and consequently consumer satisfaction (Hooley *et al.*, 2001; Lambin, 2009).

Marketing contributes to the coordination of efforts that aim to guarantee customer contentment and maintain it. And from this synergy the strategic marketing and operational marketing arise, the former being involved in actions used to understand the market through market segmentation processes, the identification of targets, and subsequent application of the strategy for positioning goods and services in relation to the chosen target (Kotler & Keller, 2009).

Following the strategic phase, the operational marketing is conceived, which mainly involves determining four fundamental points so that the goods and services attend to the market, namely: product, place, price and promotion (Hooley *et al.*, 2001; Lambin, 2009).

The most common way of applying crowdsourcing in market research is to gather data via surveys and questionnaires. The interviewees are subjected to a series of simple questions and the results are subsequently used to create a product strategy. Given that these questionnaires in some cases involve a monetary reward for the interviewees, there is a considerable problem when crowdsourcing is used for investigation. Here the provision of false data should be highlighted, which can lead companies to restrict their online surveys to the target population only (Gatautis & Vitkauskaite, 2014; Libert & Spector, 2010). Bearing in mind that the company is paying them, many respondents may provide answers that represent an unreal image of a company or answers considered desirable by the company.

In recent years, many companies have studied the market, placing projects on crowdsourcing websites to see if people are willing to support them with money. The clear distinction between people's opinions and their willingness to pay for something can be noted, leading to a very useful indicator for the future success of the project (Gatautis & Vitkauskaite, 2014; Libert & Spector, 2010).

The development of products based on ideas created in crowdsourcing is an area in constant growth. Crowdsourcing is also widely used since companies are seeking innovative solutions for their problems. For some time, companies have been using it for the development of new products. Applying crowdsourcing to develop products implies three main differences in relation to the centralized development of a company (Gatautis & Vitkauskaite, 2014; Libert & Spector, 2010):

- It is not only limited to customers, but also includes potential customers or anyone willing to help and supply his/her ideas.
- It enables companies to obtain direct feedback, without third parties (such as distributers) being involved in the process.
- The companies can select specific areas in which improvements should be made.

The most common use of crowdsourcing is in advertising and promotional activities. This model of crowdsourcing has become popular in recent years, given that its main advantage is to enable companies to save a lot of money and use the coparticipative crowd to spread their message (Gatautis & Vitkauskaite, 2014; Libert & Spector, 2010). Crowdsourcing can be used in promoting or reconstructing the identity of an institution's brand or even a

location. Hypothetically, in situations with a limited marketing budget and expensive media markets in specific areas, it is technically possible for a company to shift its strategy towards a more creative approach by inviting customers and potential customers to participate in campaigns to improve its image (Rodrigues *et al.*, 2016).

While crowdsourcing is generally recognized as a solution for resolving the activity of repetitive businesses and creating content, it can also constitute a recipe for reinvigorating the marketing strategy, taking advantage of coparticipation to improve marketing activities, which can be a big game changer. Companies from the top of the corporate world have made use of crowdsourcing in their marketing efforts. In fact, 11 of the 12 biggest global brands (as listed in Interbrand's 100 Best Global Brands for 2014) constantly mentioned and approved the use of crowdsourcing for marketing and innovation purposes (Bestglobalbrand, 2014).

Curiously, when the variable 'place' of marketing is analyzed, crowdsourcing operates on two fronts: on the first, crowdsourcing constitutes the place itself for offering a company's service; on the second, crowdsourcing constitutes group of people working and producing in communion of market interests. In contrast, the contracting party can make use of crowdsourcing as a source of data for deciding on its future physical or virtual place, based on the feedback from users pre-qualified to navigate within the environment (Gatautis & Vitkauskaite, 2014; Libert & Spector, 2010).

3. Methodological procedures

The article was developed based on a qualitative methodology. For that purpose, we presented a theoretical background that addresses concepts that underpin the discipline of marketing and crowdsourcing. To facilitate the understanding of the themes studied herein, the article makes use of case studies for illustrative purposes of companies that make use of crowdsourcing. Professionals directly related to marketing activities answered a semi-structured questionnaire, which enabled data to be collected on the subject studied. The questionnaire was applied to professionals of the following companies: Coca-Cola (Marketing Manager – 11 years working in the company), PepsiCo (Marketing Manager – 8 years working in the company), Netflix (IT Manager – bachelor of economics – 2 years working in the company), and Amazon (BI Manager – bachelor of technology – 7 years working in the company). The interviews were conducted informally by email.

Case studies are adopted when how- and why-type questions are posed. They are used when the researcher has little control over events and when contemporary phenomena included in some real life context are under focus (De Pádua, 2002; Yin, 1998).

In addition to the application of the semi-structured questionnaire, triangulation was also performed for the data collection. Sources such as institutional websites, informational articles, and other sources were used. It is believed that the verification of the different forms and approaches in the use of the triangulation technique in scientific production allows researchers to group a broader set of data from several primary and secondary sources

Finally, it was possible to illustrate the use of crowdsourcing in the companies: Coca-Cola, PepsiCo, Netflix and Amazon.

4. Results of the research

4.1 Crowdsourcing cases

4.1.1 Case 1 – Coca Cola. Although repeatedly used today, the operational models embedded in terms such as crowdsourcing and collaboration do not exactly constitute novelties in marketing: via surveys, for example, this activity has always sought to draw on the information derived from consumers of the Coca-Cola Brazil brand. However,

technologies have enabled this process to be carried out more openly and more transparently.

In Brazil, Coca-Cola has bet on collaboration in projects such as Refresh Your Ideas, which in 2018 received more than 250 thousand suggestions of art works to decorate the cans of the soft drink Sprite.

The crowdsourcing actions of Coca-Cola have more to do with brand positioning and marketing. One of the most notable cases is that of the video collectively created in Singapore to launch Coca-Cola Zero, an action that was later repeated globally.

4.1.2 Case 2 – PepsiCo. PepsiCo offers the biggest global portfolio of food and drink brands, which includes 22 different product lines that annually generate more than US$1bn in sales each. Its main businesses – Quaker ® (cereal), Tropicana ® (fruit juice), Gatorade ® (sports drink), Frito-La Y ® (snacks), and Pepsi Cola ® (fizzy drink) – also produce hundreds of other tasty and nutritious convenience foods and drinks that are known and respected throughout the world.

Since 1953, PepsiCo has been one of the main food and drink companies in Brazil and operates in the market under preferred and market leading brands such as Quaker ® (cereal), Toddy ® and Toddynho ® (chocolate drinks), Elma Chips ®, Lucky ®, and Eqlibri ^TM (snacks), Mabel ® (cookies), Gatorade ® (sports drink), Lipton ® (ice tea, in partnership with Unilever), Kero Coco ® and Trop Coco ® (coconut water), and H2OH! ® and Pepsi Cola ® (fizzy drinks).

In total, the company has more than 19 plants and more than 100 sales branches located throughout Brazil and the counts on around 13 thousand employees, who have already chosen the company as one of the best workplaces in Brazil for 13 times. Since 1997, the company has maintained a close partnership with AmBev – the Americas Beverages Company – for the production, sales, and distribution of Pepsi ®, H2OH! ®, Gatorade ®, and Lipton ® to more than one million sales outlets throughout the country.

At PepsiCo, the employees are united by the commitment to achieve sustainable growth by investing in a healthier future for people and the planet, which is also believed to be a more successful future for PepsiCo. At PepsiCo this is called commitment to Performance with Purpose; that is, PepsiCo promises to:

- Offer a broad portfolio of food and drinks that attend the local tastes of the consumers;
- Discover innovative ways of minimizing its impact on the environment, including the conservation of water and energy and a reduction in the volume of packaging; and
- Provide a great workplace for its employees; and to respect, support, and invest in the communities where it operates.

In the global setting, PepsiCo has already developed various actions based on crowdsourcing: among these, the Democracy campaign to choose new flavors for the Mountain Dew line of drinks sold in the USA, and the well-known broadcasting of a Doritos commercial created by a consumer during the highly-valued Super Bowl intervals. Little by little, this creates greater consumer loyalty and strengthens the brand's performance indicators.

Since 2014, the PepsiCo brand also conducted an experiment with crowdsourcing. It made a bold proposal to its consumers: they were supposed to come up with new flavors of potato chips. This is an example of a crowdsourcing campaign. A task that is normally developed by an employee of the company itself is handed to the public in a free challenge

format. This call from PepsiCo also proved to be quite fruitful. It is not by chance that since then other companies from the sector have sought to do something similar to this idea.

4.1.3 Case 3 – Netflix. For your business to succeed, much planning, research, and the creation of strategies that are consistent with your target public and operating area are needed. With Netflix it was no different.

In 2006, the company promoted Netflix Prize, a competition that would give $1m to whoever was able to make at least a 10 per cent improvement in the platform used. The initiative is known as crowdsourcing, in which different people work voluntarily and collaboratively in the same environment and project, seeking the same objective in this case, which besides the prize, involved the winner making improvements to the company's already famous platform.

If you have already experienced Netflix, you know that you need to answer some questions about the type of content you prefer. Using this segmentation, the company is able to recommend what it judges to be of interest to you. This segmentation is also very important for you to develop your marketing strategies. Depending on the strategy of the sales funnel your possible client is in, the way you will approach the content available will be different. If the consumer is well fed over hihe/sher trajectory, he/she will almost certainly be likely to buy when the time comes.

In 2013, to compete as equals with television companies that were consolidated in the market, such as HBO and Showtime, the company knew that losing the quality of what it was producing was not an option. Since then, various original productions have been launched, such as House of Cards, Narcos, Orange is the New Black, and even series made in partnership with Marvel, such as Daredevil and Jessica Jones, which have been highly praised and consumed.

Thus, one of the most relevant marketing lessons is to invest in content marketing to become a reference in your operating area. Create a blog, write articles that solve your potential clients' problems, and by using your knowledge, educate them with regard to your products and services. With this strategy you convey credibility and professionalism and will also strengthen your ties with your public.

The social media team at Netflix does not miss an opportunity to create engagement. Aware that for many subscribers watching series is sacred, in "The ten commandments of Netflix", actors from its main series presented 10 commandments for those who watch series. For this reason, it is not enough to merely create an account with some social networks. It is necessary to be active, interacting in a close and personalized way, even when someone is dissatisfied. At these times, you should find the best way of dealing with the situation to resolve your client's problem.

When Netflix offers a free month trial, it is giving the consumer a chance to see if he/she really likes what is on offer. This test may be what was lacking for an indecisive consumer to close a contract and shows concern about the target public.

4.1.4 Case 4 – Amazon. According to the British consultancy Interbrand (2016), the Amazon brand alone is valued at US$18,625bn, occupying position number 20 in the ranking of the most valuable brands in the world, besides occupying position number 15 in the ranking of the most influential brands in the world. The company also occupied position number 56 in the ranking of FORTUNE 500 magazine (companies with the highest turnover in the American market) in 2013.

The company, which is the biggest online retailer in the world, sells more than 22 million different products to 179 countries and has more than 62 million customers, a turnover of more than US$48bn, and more than 31 distribution centers throughout the world, totaling more than $840,000\,m^2$ of warehouse space. Moreover, it has six international web pages:

besides amazon.com in the United States, there are local websites in England, Germany, Japan, France, Canada, China, Spain, and Italy. Amazon is the 10th most visited website on the Internet, with more than 62 per cent accesses made in the USA. North America alone was responsible for 54.6 per cent of its sales in 2010. The period with the highest volume is the month of December, when the company dispatches approximately 3.4 million orders daily to 200 countries.

Amazon is still the owner of various other businesses such as A9.com, which develops the electronic commerce and advertising search engine; Internet Movie Database (also known by the abbreviation IMDb), an online database of information on music stars, cinema, movies, programs, television programs, and commercials; and Alexa Internet, a service that measures how many users visit a website and other related statistics.

Like Netflix, Amazon will produce its own content to complement its on-demand sales catalog. It already has 21 movie projects and 9 own series in development. Since the end of 2010, the company Amazon Studios has received thousands of scripts on its website, sent by aspiring screenwriters and filmmakers. If one becomes a TV series, the author will receive more than US$55 thousand, or in the case of a feature-length film, US$200 thousand. Warner Bros is a partner of Amazon for the production of feature-length films whose first screening will be in the cinemas.

Instead of buying a script and then investing in the production of a feature-length film or the pilot of a series, Amazon first invests in the development of the script and in the production of test videos, which are evaluated by thousands of volunteers. The authors receive comments to adjust their scripts in the hope that they will be become movies and series.

For whoever knows Mechanical Turk, Amazon's online crowdsourcing market, the Amazon Studios will sound familiar. For example, Amazon put its best new test movies from 2011 on Amazon Instant Video, its video streaming service. The customers saw the projects thousands of times, according to the company. Now the company is using the opinions and comments left to rewrite the scripts.

Amazon has also gathered data on how many times customers watched the test videos and how many watched the videos in full. This form of implicit feedback is just as useful, or sometimes more useful, than explicit feedback, revealing a lot about the possible commercialization of these ideas.

Amazon Studios recently made "Blackburn Burrow", the film script from the screenwriter Jay Levy, into a digital comic story, to obtain more information from consumers. HQ, available from the Kindle store, has become Amazon's most downloaded free comic and comes with a survey of opinion about what people think of the story, according to Levy.

Obviously, market research in creative processes is nothing new. Hollywood tests movies using focus groups all the time, but not on such a large and open scale as the Amazon. There is often no public feedback almost until the movie is launched and the production of movies is an interactive process, draft after draft. Amazon is doing well to find more places over the course of the process to obtain feedback.

Understanding that marketing is characterized by intangible capital and that it can, therefore, interfere directly with the company's revenue, it is fundamental to know new strategies that can be increased to this capital, to boost the revenue of the business and increase its competitive value. In this sense, understanding the development of crowdsourcing is of paramount importance. With the presentation of illustrative cases it is possible to unveil emerging concepts that are associated with crowdsourcing, the reputational capital of organizations, the development of Web 2.0, and the network society.

Still reflecting on the findings of this study, it is possible to observe that the marketing needs to be rethought and very well designed so that it is viable for organizations to ensure the maintenance of their brand reputation in a context that demands increasingly more transparency and less information asymmetry.

4.2 Reflexive analyses

As this economic model expands and advances towards consolidation, more critical positions have emerged that oppose its development, since for many traditional entrepreneurs it represents disloyal competition within the sector (Gatautis & Vitkauskaite, 2014; Libert & Spector, 2010). The growth of platforms such as Airbnb and Uber has become the subject of controversy around the world.

In the case of Uber, demonstrations and protests have been seen from taxi drivers, who, from Washington, Mexico City, Bogotá and Madrid, demand regulations and even punishments for the use of such economic model. It reveals a generalized and shared desire on the part of consumers throughout the whole world to find solutions that increase their access to goods and services (Gatautis & Vitkauskaite, 2014; Libert & Spector, 2010).

With this panorama, the major challenge that the collaborative economy faces is regulation, since at the moment there is no clear regulatory framework and we are faced with the need to create rules that provide safety and confidence to the ones involved (Gatautis & Vitkauskaite, 2014; Libert & Spector, 2010).

The reputation system implanted by these platforms provide users with the necessary information about the good or service they wish to have access to, although this is not always sufficient. The changes in the market with the advent of the technologies captained by the Internet, artificial intelligence, internet of things, and outsourcing are undeniable. A new place and new interpersonal relationships can result in the emergence of a new paradigm and new business opportunities.

In crowdsourcing it is seen that a company assumes a job that has already been carried out by the employees, retrieving the concept of co-creation. It then outsources using an open invitation to a group of people, generally using the internet. This definition implies that companies trust their customer more with regard to the process of creation, conception, choice, and launch of a product. This simple but powerful idea has serious implications, such as more access to a vast range of talents that are outside the organization, the opportunity to find creative and innovative ideas, more opportunities for obtaining a firsthand view regarding customers' desires, resolving problems and enabling the public to feel they are the owners of the organization (Madeira *et al.*, 2017).

Hypothetically, if the company *Greenfoods* is offering $20,000 in a competition to find ideas for its next TV campaign for a snack using a crowdsourcing platform, this type of measure imposes new challenges and new threats for the current operators. In this case, LAT, the marketing agency with which *Greenfoods* has been working since 2000, was put off the project. Is this the future of marketing? What will happen with already existing marketing agencies? Moreover, the implications of managing the information in the CROWD link need to be considered, which will directly influence the marketing intelligence subsystems, in accordance with the maze of information and noise among participants, which could complicate the decision making process. Since it is difficult to control the participating public, and remembering that these customers are not company employees and that the agreement is probably not written, if there is not sufficient and clear leadership by the company the project will get out of control. In addition, this type of initiative requires time, attention, and communication skills (Madeira *et al.*, 2017).

So, the advantages of crowdsourcing for the creative economy entrepreneur are:

- Risk reduction in decision-making: Despite all prior planning, the decision-making process can give rise to errors. With crowdsourcing the risk of not knowing what the level of acceptance of the products/services offered to consumers will fall considerably, since the company has real-time access to what they think about the product or service;

- Reduced execution time: by using the capacity of the crowd, which runs parallel to that of the company, results can be achieved faster;

- Reduction of operational expenses: since this is a variation of outsourcing, the costs of selection, contracting and training are practically nonexistent;

- Choice of the best option according to the needs: for the quality and diversity of ideas of people who see the problem from the outside, and who probably would not come from professionals of the organization itself; and

- Public engagement: By engaging and encouraging consumers to participate in a more active stance in the production process and by selecting the best alternatives for products, there is a better chance of success of the products or services resulting from this empowerment.

However, the following guidelines should be taken into account to successfully adopt crowdsourcing:

- *Define the crowd*: The challenge can be proposed to the general public or to a specific group using one or more social media.

- *Be clear and objective*: The message of convocation should be as clear as possible, so that it leaves no doubt for the people or open to other interpretations.

- *Describe the process*: Objectively present all steps of the process, such as contribution, selection, and voting.

- *Set a deadline*: Employees need to know how much time they have to present their ideas.

- *Rewards report*: Employees should also know who will be paid – whether all participants or only the best idea – and the nature of the reward (monetary or not).

- *Give due credit*: In addition to the rewards, the winner must have the name disclosed for their contribution.

- *Engage with the crowd*: Doubts or questions can often arise to be answered by the entrepreneur, who acts as a "coach" of this crowd to reach the goal.

- *Provide feedback on contributions*: Regardless of the quality of the idea, pass on your considerations about it. The returns can give rise to a contribution that serves to solve the problem.

- *Let the public decide*: By means of a voting system, enable the crowd to show their will; this can ensure that the solution chosen is the one that best suits their target consumers.

- *Centralize the contributions in one place*: Even if the initiative is publicized in various social media, define a place where all the ideas to be evaluated will be available.

5. Final remarks
Generally, companies call for collective intelligence to do something that would normally be the responsibility of an internal team. Or for a job that would be performed by a specialist

firm. This is a common practice too among small nonprofit or community organizations with limited budgets. In such cases, they use the crowdsourcing strategy as a means of spreading a message or promoting an event.

Companies have no limit to adopt crowdsourcing. Some common situations:

• collect data on the market and products/services;

• perform tests, after all, people love to point out flaws in products/services;

• know the opinion of the client or potential customer about a product/service and seek more creative and innovative ways for their needs;

• search for ideas for logos, slogans, physical or virtual store layout - usually done through competition;

• make schedules, and in that case, competition also works well. Competition enables people to create various ways to encode and frame websites, applications, and so on;

• find solution to a complex problem or gaps;

• streamline customer service, for example, allowing users or fans to answer questions on Twitter and Quora;

• engaging the customer and turn him/her into the brand's advocate;

• offering manual labor, dividing a large and complex task into small parts and letting people do the work;

• recruit talent; and

• crowdfunding – the company can then measure the consumer's interest in the product/service and carry out preorders before its development.

Google, Wikipedia, Amazon, Netflix, and Facebook are only some of examples of young organizations that had already achieved success in the beggining of the twenty-first century. They all have something in common, besides the fact that they are all well established companies in their respective operating sectors: they emerged, grew, and consolidated through the propulsion engine known as Web 2.0. The changes supported by the internet have also implied various changes in business administration activities, including marketing. The transfer of power to crowds of consumers has led to a reduction in costs.

Crowdsourcing is a production model that uses collective intelligence, collaborative culture, and the formation of communities to solve problems, create content, and seek innovation. Its existence depends directly on the involvement and participation of people, supporting the existence of a new type of user, the producer: the one who wishes to participate in the stages of production as well as merely consuming.

When addressing the article's main objective, we verified that the employees interviewed in the field research were not yet prepared for the implementation of crowdsourcing. It was noted that:

• Companies do not have an established institutional mission; those that do usually follow depleting and unengaging standardization.

• Companies seek to differentiate themselves from competitors strictly by manipulating the marketing mix (quality, customer service and price).

• Entrepreneurs act exclusively in the wholesale segment and their owners do not consider approximation with the final consumer to be important, arbitrarily leaving this task to middlemen, who do not have the preparation or the legitimacy for such task. The lack of knowledge regarding the business model based on crowdsourcing

was also evident, as well as the lack of some essential practices for its implementation.

- Only some companies communicated that they sought to make a contribution to the final users by developing collections, and even these confirmed that this occurs in an unstructured way through informal conversations with the users.

How can the individuals responsible for company communication take advantage from crowdsourcing? If mass collaboration is developed in social networks, one of the bases for communication actions, there is logically no way to develop actions without the strict intervention of the company's communication sectors. It is an integrated job, which should be discussed in terms of associative strategies. In this case, research and development and communication are closely linked.

A collaborative action is an integrated marketing and communication action. In the same way, using bloggers to evaluate products today is a basic form of research and development, networking, and communication with consumers, who become co-creators of products and services as well as interlocutors with those responsible for corporate communication. A consumer who produces a video and posts it on YouTube, commenting on the characteristics, qualities, and flaws of a product is also being collaborative with the company's communication sector, and as such should not be seen as someone who only interferes in a negative way (in the case of criticisms) in the company's image, but as an interlocutor who, in one form or another, is spreading the product and the brand. This indicates a change of paradigm that needs to be absorbed and considered in the corporate communication process.

A significant number of advantages are therefore perceived for companies that adopt mass collaboration practices in the research and development of products. The strategic importance of this concept for companies that launch themselves into these surprising endeavors is even clearer and more consolidated in their planning. It is up to those sectors that are responsible for communication to think of strategies that incorporate the collaborative work of consumers into their actions.

Finally, the article proposes a study of theoretical references pertinent to the theme of marketing and crowdsourcing and illustrates the theory in specific business cases. It enables: a clarification of the subjects studied, a qualitative approach of the theme, academic assistance for future researchers and encouragement for future questions and elaboration of hypotheses.

As it is an exploratory study, there was no validation of causality between variables, which may diminish the empirical value of the findings. In this context, the sample is small and non-probabilistic, which on one hand enabled the conduction of interviews, but on the other does not enable the results to be generalized. In continuity, it is recommend that future researchers carry out the same research, using a quantitative method or a qualitative method in a different period from the one presented. We also suggest that a multiple case study is conducted using other companies for analysis.

References

Aaker, D.A., & McLoughlin, D. (2010). *Strategic Market Management: Global Perspectives*, John Wiley & Sons, S.l., Vol. 8.

Eskenazi, M., Levow, G. -A., Meng, H., Parent, G., & Suendermann, D. (2013). Crowdsourcing for speech processing: applications to data collection, *Transcription and Assessment*, *19*, 93–109, Retrieved from: https://ieeexplore. ieee.org/book/8039813

De MenezesU.G (2015), "Consumo Colaborativo: Relação Entre Confiança E Cooperação", *Revista Metropolitana de Sustentabilidade*, Vol. 1, p. 103, Retrieved from: www.revistaseletronicas.fmu.br/index.php/rms/article/view/632

De Pádua, E. M. M. (2002). *Metodologia Da Pesquisa: abordagem teórico-prática*. Papirus Editora.

Gatautis, R., & Vitkauskaite, E. (2014). Crowdsourcing application in marketing activities. *Procedia - Social and Behavioral Sciences*, *110*, 1243–1250.

Hooley, G. J., Saunders, J. A., & Piercy, N. F. (2001). Estratégia de marketing e posicionamento competitive. *I. Times, Organization*, *11*. http://dx.doi.org/10.5007/1984-8951.2010v11n98p365

Kotler, P., & Keller, K. L. (2009). *Marketing management*. London, United Kingdom: Pearson.

Lambin, J.-J. (2009). Capitalism and sustainable development. *Emerging Issues in Management*, *2*, 3–9. http://dx.doi.org/10.4468/2009.2.02lambin

Leimeister, J. M. (2012). Crowdsourcing: Crowdfunding, crowdvoting, crowdcreation. *Controlling and Management*, *56*, 388–392.

Libert, B., & Spector, J. (2010). *9 Rules for Successful Crowdsourcing*, Upper Saddle River, NJ: Financial Times Press.

Madeira, A. B., Toledo, L. A., & Garber, M. F. (2017). Crowdsourcing en las actividades de marketing. *Revista DA Fae*, *19*, 93–109.

Morschheuser, B., Hamari, J., & Koivisto, J. (2016). Gamification in crowdsourcing: a review. Proceedings of the 49th Annual HI International conference on system sciences, Kauai, Hawaii. http://dx.doi.org/10.1109/HICSS.2016.543

Rodrigues, L. F., Jesus, R. A., & Schützer, K. (2016). Industrie 4.0 – uma revisão da literatura. *Revista de Ciência and Tecnologia*, *1*, 3–10.

Toledo, L. A. (2016). Marketing sob a perspectiva da pratica gerencial em crowdsourcing. *Revista Inteligência Competitiva*, *1*, 119–138, http://dx.doi.org/10.24883%2Fric.v6i1.143.

Yin, R. K. (1998). The abridged version of case study research. In L. Bickman & D. J. Rog (Eds.), *Handbook of applied social research* (pp. 229–259). Thousand Oaks, CA: Sage Publications. In Retrieved from: https://psycnet.apa.org/record/1997-36452-008

Further reading

Garcia-Molina, H., Joglekar, M., Marcus, A., Parameswaran, A., & Verroios, V. (2016). Challenges in data crowdsourcing. *IEEE Transactions on Knowledge and Data Engineering*, *28*, 901–911.

Stark, R., Damerau, T., & Lindow, K. (2017). Industrie 4.0-digital redesign of product creation and production in Berlin as an industrial location: Challenges and solutions for digital transformation and innovation. In U. Sendler (Ed.), *The internet of things: Industrie 4.0 unleashed*. Berlin, Germany: Springer. http://dx.doi.org/10.1007/978-3-662-54904-9_10

Toledo, L. A., & De Medeiros, A. (2012). Tecendo um discurso das peculiaridades que permeiam a inovação, a internet e o desenvolvimento da computação em nuvem. *Sistemas and Gestão*, *7*, 41–57. http;//dx.doi.org/10.7177/sg.2012.v7.n1.a3.

Corresponding author
Luciano Augusto Toledo can be contacted at: lat2708@gmail.com

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