

Chipotle Mexican Grill Cooperating to the Development of Smart Cities

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Abstract

The main goal of this study is to identify actions of a food company released to the market, which corroborated to the development of smart cities. This subject addresses topics related with environmental sustainability, sustainable innovation and living labs. Data derive from the website of a Brazilian magazine. Choosing this means of communication derives from its informational contribution and from the emergency of this subject in the Brazilian context. The research pointed 155 news related to the object of study. Eight percent of the news found is relevant to the study and they show that the company studied is an important actor for contributing with the development of smart cities and their strategy of sustainable innovation is significant to this contribution.

Key words: Sustainable development; Innovation; Strategy



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INTRODUCTION

Building smart cities is a subject of this work, which uses distinct theoretical assumptions to contemplate it, not totalitarily, due to its theoretical amplitude and mainly due to this subject to be a new field to be explored. Taking a glance towards organizations, competitive advantage is perceived in this field, as proposed by Porter (1980), suffers a modification regarding its sustainability. Competing with cost or differentiation strategies are not enough to sustain a competitive position, while the need of a better competitive placement motivates innovation. The concept of transitory competitive advantage suggests that organizations must have competitive advantages packages, and a new competitive advantage must be used before the competitors reach them (McGrath, 2013). In this context, innovations can be considered as syntheses of resource utilization and the ability of creating transitory competitive advantages, besides an undertakable strategy.

Sustainable innovation offers a new perspective about competitive strategy creating products or processes with features desired by the market. Eco-innovation characterizes as one of these innovations, as contributions for the reduction of environmental charges depend on them (Rennings, 2000).

Processual innovations in products/services, organizational or market, both for the industry that supports innovations and for the market that uses these innovations, constitute Market dynamism (Oecd, 2005), and to act in dynamic environments, organizations must have a resource and capabilities background that support a business model correspondent to these environmental alternations.

Based on this background, open innovation, defined as a combination of resources and capabilities internal and external to the company can promote progress in the development of new products, processes, markets and organizational methods, allowing more interaction with market dynamicity and enabling a model of open business (Chesbrough, 2004, 2006).

Moreover, the background must support strategic actions, as the ones mentioned, besides contemplating sustainable development by means of activities that mitigate or minimize environmental impact. However, actions in this regard must integrate the organizational strategy and be transversally contemplated by the organization in its exercise, so that all the organization takes the environmental impacts of their actions into consideration.

Organizations are the main actors of the minimization or impracticability of environmental impact, however, State and companies cannot, individually, act with this purpose and provide actions that develop smart cities. So, Personal-Public-Private Partnerships (Carayannis & Campbell, 2009; Arnkil, Järvensivu & Pasi, 2010) are a way of making this development happens.

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In the scope involving environmental sustainability and innovation, environmental education is important for the creation of an environmentally sustainable future, both acting as a driver to the development of innovations, and/or using innovation or as a tool to be disseminated. In this context, through the co-creation of value for different actors involved in this environment (Prahalad & Ramaswamy, 2002), based on the concept of open innovation, a living lab, characterized as infrastructures towards user-centered (open) innovation, supporting a network of stakeholders in the creation and development of products/services with the active involvement of users; also testing environment towards the introduction of new applications by means of their exposure and validation by the final users (Følstad, 2008), play a strategic role in different scenarios.

Based on the characterization of living lab, one can understand organizations seeking the development of a sustainable environment as one of the responsible for the operation of a living lab, as they act as infrastructures directed to user-centered (open) innovation, supporting a network of stakeholders in the creation and development of products/services with the active involvement of users; besides using testing environments, towards the introduction of environmentally sustainable actions, so that they achieve them in their market of operation after the validation of users, as well as to influence their value chain downstream.

Studies on living labs are covered, mostly internationally, such as the studies of Abowd (1999), Enoll (2017a,b,c) and Eriksson, Niitamo and Kulkki (2005). In Brazil, studies regarding living labs can be found in the works of Garone and Pinto (2011), Pinto and Fonseca (2013a,b) and Silva (2012, 2013, 2015).

Studies on the subject "smart cities" are broader in the international context. The studies of Dameri (2013), Oksanen and Hautamäki (2015) and Tukiainen, Leminen and Westerlund (2015) are highlighted. In national level, the studies of Duarte (2005), Gama, Alvaro and Peixoto (2012) and Strapazzon (2011) can be highlighted.

Thus, the objective of this study is to identify actions of a food company disclosed to the market that corroborate to the development of smart cities. The contribution of this study refers to the dissemination of the concept of smart cities. Thus, this work presents the literature review, describes the study case, presents the market procedures, results and discussions endeavored and concludes with the final considerations.

LITERATURE REVIEW

As following, a literature review focused on the terms underlying this study is presented. This review addresses the literature related to living labs, conceptualizing and presenting situations in which its use promotes gains to their stakeholders; regarding smart cities environmental sustainability is discussed, as well as its integration with sustainable innovation and eco-innovation, which eases the understanding of this term.

Living lab

The term living lab has an old reference to the work of Knight (1749), which uses the term Living Laboratory in his studies on the human body, however, the term living lab became to be used in environments with more technological power and assigns to technology the ability of capturing symbolic representations of spoken language to store long-term information which is free of individual memory limits. Information is omnipresent, are not monopolized by books or magazines, but is also present in painting, music, street signs, among others, which do not demand active attention but are ready to use. Omnipresent computing arises from this context, however, with the ability of storing information and avoiding human information overload (Weiser, 1991).

Omnipresent computing is challenged by the provision of supporting tools for capture, integration and access to registers. The proposal of this automatized support is that computers do what they do best: registering events. This computational omnipresence is identified when a given technology is developed to capture an experience in a live educational situation and, by means of videos, audio, presentation of slides and notes from students and teachers for subsequent access to users, positively affects teaching experience (Abowd, 1999).

Off the concept of omnipresent computing, however implicit in the Project, the *Place Lab* characterized by a lab built with the objective of observing users' living standards in a smart home allowed the architect William Mitchell² (1995), to be called the father of the term living lab. This living lab was conceived to work as a regular house, with all facilities needed: bedrooms, living rooms, storages, bathrooms, fully equipped kitchen, etc.

The planned investigation infrastructure, defined as a living lab, crucial to investigate the interaction user-system, in the framework of a smart house, was held to provide to researchers investigations regarding technologies in realistic situations (Markopoulos & Rauterberg, 2000).

One can propose that living labs are new configurations to organize innovation and are perceived as a network which integrates open innovation and as user-centered investigation by means of their interaction in the so-called co-creation of value. Still, in the articulation of a full conception of how life can be conceived in a house in the future.

A living lab refers to the involvement of firms, organizations and customers in the innovation process. A network integrating open and investigation user-centered innovation by means of a methodology of research and development, in which innovations are created and validated by means of real and collaborative environments, due to the interaction of the people involved in the co-creation of value (Eriksson *et al.*, 2005).

All in all, a living lab is divided into two categories: i) infrastructures towards user-centered (open) innovation, supporting a network of stakeholders in the creation and development of products/services with the active involvement of users and; ii) testing environments towards the introduction of new applications by means of the exposure and validation by the final users (Følstad, 2008).

The European Network of Living Labs (ENoLL) is a community of Living Labs aims to strengthen innovation systematically. Their goal is to contribute to the creation of a European system of dynamic innovation. Their definition of living lab, confirms the concepts of other authors regarding this subject, that is, an environment of real-life tests and experiments that allows the co-creation of innovation. These testing environments were characterized by the European Commission in public/private Partnerships (4Ps)³ for user-centered open innovation. According to them, the activities of a living lab are divided into: co-creation; Exploitation (discovering uses, behaviors and opportunities of emerging markets); Experiments (implementation of living scenarios inside user communities) and; Evaluation (evaluation of concepts, products and services in accordance with social-ergonomic, social-cognitive and social-economical requirements) (Enoll, 2017b).

Studies about living labs in Brazil are emerging. The study of collaboration networks for sustainable innovation held at the Living Lab Habitat shows that this structure, due to the multi-disciplinarity of the involved areas, allows the chance to meet sustainable functional ways to the society and other responsible parties to multiply possibilities of action in the design field (Garone & Pinto, 2011).

A performance measurement system that could be used in collaboration networks was also studied at the Living Lab Habitat, identifying little informational transmission over this measurement system category to collaboration networks (Cardoso, Davis & Veronez, 2012).

Social innovation is also a subject of study covering Brazilian living labs, as in the case study held in the Nokia Technology Institute Living Lab, in which social innovation operates over environmental and social issues to enable the identification of unfulfilled needs and develop solutions that allow the creation of new markets (Silva, 2012).

Other works concerning studies on living labs in Brazil can be found in the studies of Pinto and Fonseca (2013a,b), Silva (2013, 2015), Silva and Bignetti (2012) and Silva and Bitencourt (2015).

² William Mitchell, rector and professor at MIT, architect, planner and theoretical, widely considered as one of the most prominent thinkers in the subject "smart cities" (Enoll, 2017a).

³ Personal-Public-Private Partnerships are based on a Quadruple Helix Model, adding the actor "people" to the triple helix developed by Etzkowitz and Leydesdorff (2000), originally conceived as Company, Government and Academy (Carayannis & Campbell, 2009; Arnkil, Järvensivu & Pasi, 2010).

Four hundred living labs linked to living labs worldwide were found since 2006, more concentrated in Europe, as shown in Figure 1. Twelve Brazilian living labs are listed as per Chart 1. Some of these labs are mentioned in national studies (Enoll, 2017c).

Figure 1- Living Labs worldwide



Source: Enoll (2017c)

Chart 1- Brazilian living labs linked to the EnOLL

Espírito Santo cidadania digital Living Lab	EDP/Brasil LL
Amazon Living Lab	Amazonas Living Lab
INdT- Well Being and Health Care LL / Mobile Work Spaces Living Lab	Inventa Brazil Rural Living Lab
Brazilian Biotech Innovation Living Lab	Cuidando do Futuro (<i>Taking Care of the Future</i>)
Well Being Rio Living Lab	Corais Open Innovation Platform
Group Inter-Action LL	Habitat Living Lab

Source: ENOLL (2017c)

Smart Cities

Smart cities imply areas that benefit citizens by means of logistical planning, energy production, use of high technology, and their cooperation to provide well-being to the citizens, environmental quality and smart development (Dameri, 2013).

From this definition, one can understand that there is different focuses to undertake actions providing the creation and development of smart cities. This study focused environmental quality, mostly in organizations, but not restricted to them. Environmental quality is approached, initially, from social responsibility, defined in different ways by different authors and in some moments characterized as obligations of adopting orientations, deciding and acting in accordance to the society demands (Davis, 1960).

The closest definition to the one referring to smart cities, characterize social responsibilities as the employment of productive means in a manner that production and distribution increase social economical welfare, by fulfilling customers needs (Frederick, 1960). Further, organizational social responsibility is the one in which efforts beyond the organization profits are made and consider distinct stakeholders (Eells & Walton, 1974; Johnson, 1971; Jones, 1980).

As an economical institution, a firm is responsible for helping the society to accomplish their goals. In this context there is no exclusion of social responsibilities (Steiner, 1971). In a more bureaucratic scope, environmental responsibility demanded by law, is no longer environmental responsibility, without losing its mean, when it is only the fulfillment of a legal requirement. Environmental responsibility must go beyond legal requirements to be characterized as such, because observing the law is an obligation of every citizen (Davis, 1973; Jones, 1980.)

Companies' social responsibility takes up economical, legal and optional expectations of the society concerning the organization at a given moment (Carrol, 1979), characterizing different parts to compose social responsibility of the firm: economical, legal, ethical and voluntary responsibilities (Carrol, 1991).

Social responsibility is intrinsic to social equity and citizens' well-being, which is like two equal weights, is different sides of the scale. The enhancement of well-being is crucial to ease social equity, which is not possible without enhancing citizens' well-being, and both are translated into respect to the biosphere. Thus, social sustainability is supported by three principles: social welfare, social equity and respect to the biosphere. Nevertheless, the responsibility by the promotion of these principles is assigned to private enterprises, in such a way that efforts should be made in order to eliminate indigence, boost jobs, income, equal opportunities, foster social integration etc., whilst regenerate natural capital (Gladwin, Krause & Kennelly, 1995). Moreover, private enterprises return the responsibility to the government, however, the State fails in this context and assumes that the organizations are faster, more creative and more resourceful and influents than the government or than non-profit organizations (Hawken, 1992).

In summary, environmental sustainability is based on a tripod constituted by the economical, environmental and social spheres (Elkington, 1994). Sachs (2004) presents an evolution of this tripod by showing the social, economical, ecological, spatial and cultural principles. In general, spatial and cultural basis can be considered as inherent to social basis. In this sense, in companies, in which their managers think strategically in sustainability, there is a basis in this tripod that uses strategic tools such as Balanced Score Card (Kaplan & Norton, 1997), in order to evaluate their actions (Oliveira, Medeiros, Terra & Quelhas, 2012).

Moreover, environmental sustainability takes a *pari passu* path with sustainable development, which is aligned with the concept of smart city and with the tripod relating to environmental sustainability. Environmental sustainability comprehends "[...] the one that fulfill the present needs without committing the possibility of future generations to fulfill their own needs" (p. 46), and the means of achieving this concept is by means of environmental education (Comissão Mundial Sobre Meio Ambiente E Desenvolvimento, 1991).

The dissemination of information is put under the responsibility of education, choosing it as the main means to achieve sustainable development (Unesco, 1997). Conferences such as the ones of Tbilisi, concern discussions over environmental education when recommend education in a general and specific way to influential professional or social groups; and the formation of given groups of scientists and professionals dedicated in solving specific environmental problems (Barbieri & Silva, 2011).

Thus, studies present different kinds of consumption which cannot be excluded from the context of environmental sustainability and sustainable development. In this context responsible, ethical, solidary, conscious, green and sustainable consumption aim at care for the planet, blaming consumers by social and environmental attitudes that provide a better quality of life in the consumption of goods or services; the consumption without environmental aggression and that keeps monitoring organizational behaviors so that natural resources are consciously used, reducing waste, reutilization and/or recycling, and without destroying the environment (Costa & Teodósio, 2011; Dinato, 1998; Elkington, Hailes & Makower, 1990; Instituto Akatu, 2002; Lipovetsky, 1989; Mance, 2003; Portilho, 2005).

On the other side of consumerism, there is the production of goods and services, held by organizations which invest in innovation in order to create superior competitive advantage are compared to their competition. This field is defined by a cyclic process, in which old patterns are destroyed to give place to new ones (Schumpeter, 1950).

However, innovating and playing a role which is coherent with sustainable development seems more and more distant from organizations connected to environmental actions. Thus, sustainable innovation is pointed as the third competitive strategy, because it goes beyond the ones pointed by Porter (1980), and is rooted in sustainable development, which is committed to economical, social and ethical principles. This third strategy do not lose sight to market's characteristics, but clusters attributes such as durability, geographical origin, use of materials and energy in accordance with the principles supporting sustainable development, because organizations realize that the market demands sustainable products and services and accepts paying more for this (Boons & Lüdeke-Freund, 2013; Hall & Clark, 2003; Rennings, 2000).

The involvement of these fields of study (innovation and sustainability) resulted in the term “eco-innovation”, known in a general way as a good, service or process that adds value to the stakeholders and reduce environmental impacts (James, 1997). In other ways, concepts that are complementary to these ones were presented in the literature (Andersen, 2008; Arundel & Kemp, 2009; Foxon & Andersen, 2009; Könnölä, Carrillo-Hermosilla & Gonzalez, 2008; Rennings, 1998).

In this sense, sustainable innovation has three defining attributes: i) contributing to sustainable welfare, founded on citizens’ quality of life, sustainable economy and a healthy, balanced relationship with nature, which provides competitive advantage to cities, which in their turn provide welfare to citizens; ii) is systemic, as the reality in which innovation happens can be created or can arise without emergence forecasts; and iii) it is inclusive and summarized in the principle “innovation for everybody”, given that everybody should have innovation opportunities, based on the creativity and personal qualification background of individuals (Oksanen & Hautamäki, 2015).

By means of sustainable innovation, companies are more able to adopt the concept of transitory competitive advantage, which suggests that the organizations should own competitive advantages packages and, before the competition reach them, a new competitive advantage must be used (McGrath, 2013), using open innovations (Chesbrough, 2004; 2006) to improve their economic performance tied to sustainable development. This concept includes the coordination of firms, government and the academy (Etzkowitz & Leydesdorff, 2000) and, more recently, aligned to the concepts of living labs, Personal-Public-Private Partnerships, based on the quadruple helix, adding the actor “people” to the triple helix (Carayannis & Campbell, 2009; Arnkil *et al.*, 2010).

With this infrastructure, cities are more willing to become smarter in order to Support the triple bottom line (Elkington, 1994), acting as orchestrators of innovation, dialoguing with citizens, public and private companies, co-creating, developing, testing and providing innovative goods and services by means of platforms such as living labs, for example (Tukiainen *et al.*, 2015).

A study case in the city of Espoo, Finland, shows that the diversification of collaborative innovation activities happening in cities assume that while cities act like platforms to these activities, four kinds of collaborative innovations are activated, such as: i) improvement of day-by-day activities and conditions of life by citizens and self-employment; ii) creative consumption experiments; iii) experiment and creation of new technologies; and iv) creation and re-creation of new economic opportunities (Tukiainen *et al.*, 2015).

Taking the theoretical assumptions into consideration, one observed that literary evidences characterizing heterogeneous actions which do not clarify the development of sustainable innovations, living labs and the creation/transformation of smart cities on the whole, due to recent approaches over these subjects. This study is proposed in order to contribute to the interconnection of these fields, reporting the case study as following.

CASE STUDY: CHIPOTLE MEXICAN GRILL

The study in question will be undertaken about a food company, Chipotle Mexican Grill, founded in 1993 in Denver, Colorado. Chipotle Mexican Grill is a company concerned about high-quality ingredients, respect to animals, farmers and to the environment and present in the United States, Germany, Canada, France and the United Kingdom. At the same time, the company has two other restaurants: Shophouse Southeast Asian Kitchen and Pizzeria Locale. However, this study focuses Chipotle.

The company shows the concern with vegetable growing and animal breeding, demands cultivation in healthy, transgenic-free soil and free-range animals. Their sources are farms which also emphasize quality and responsibility instead of industries.

The development of partnerships with farmers are based mostly on sharing the values of the organization, creating long-term partnerships by means of close relationships with suppliers, not accepting that animals are raised using non-therapeutic antibiotics and, additionally, not accepting the lack of prioritization of long-term health of their soil, as the company believes that a soil rich in nutrients reduces the need for pesticides and synthetic fertilizers; purchasing local raw materials reduces the use of

transportation vehicles and reduces the emission of carbonic gas; and natural animal breeding reduces the dependence on antibiotics.

Chipotle also invests in different actions in order to make a healthier world. One of these investments is the *Cultivate Festival*, an annual free event held in three cities which provides food, music and ideas; *The Scarecrow*, a game followed by a short film of people talking about agriculture and the future of real food; their investment in environmental development is also seen in the company's career development, in which environmental education is part of the training courses; one of their ramifications is story-telling, which is made by means of comedy, mocking the unworkable world of industrial agriculture; besides, the company also manages the *Chipotle Cultivate Foundation*, a non-profit organization that sponsors support efforts towards sustainable agriculture, family agriculture and food education.

METHODOLOGICAL PROCEDURES

With the objective of relating actions of Chipotle, referring to development and environmental sustainability to promote smart cities, this study is based on News published on the website of Exame magazine from 2008 to 2017 to capture those actions, however, there is no News published last year. This indicative timeframe was chosen by influence of the captures of News on this website, which represents News related to the key word used, from 2008 on.

The key word *Chipotle* was designated to identify the company in the study for capturing News related to the case, applying it in the search field of the website. The research was held on February 14, 2017 and the research pointed 155 news. All news had their access link captured, as well as date of publication, title and author of the content. These data were used to compile a worksheet in Excel. After a thorough reading of the news, the spreadsheet, positively or negatively, was marked on the use of a particular news item for in-depth analysis, and presentation of the data inherent thereto. News not referring to environmental practices of the organization, ambiguous news and not referring to the organization was excluded. For the news relevant to the study, a summary of the contents is presented in a chart in the following section. Eight per cent of the news found in the website is relevant to the study. The first one is dated from April, 2008, and subsequently the news refers to the years of 2013, 2014, 2015 and 2016. The highest amount of publications is 2015.

Thus, this study is characterized by its deductive method, because it seeks to identify relations with the development of smart cities; it is descriptive and exploratory; used a survey as a strategy; and a content analysis as a research technique.

RESULTS AND DISCUSSIONS

The content of this news is summarized by Chart 2, which allows identifying that the communication made with reference to environmental sustainability derives from a concern prior to the institutionalization of the company. This concern is intrinsic to the founder that, after the institutionalization of the company, market actions are endeavored in order to communicate their market about the organizational philosophy, which impacts in their supply chain, as related in the news of Merigo (2013), about the launch of a game regarding the invisible funding of citizens to the the food industrialization that undertakes cruel and abusive actions.

Likewise, Almeida (2014), Teixeira Junior (2015), Domingos (2015) and information presented in the organization's website, show attitudes meeting the dissemination of information by means of education, yet not traditionally, in order to achieve sustainable development (Unesco, 1997).

There is no evidence to justify that this education endeavored by Chipotle is the responsible for the change of attitude in their competition, but the number of restaurants that changed their menus in order to serve higher quality foods and more pleasant experiences to customers is increasing (Salomão, 2014), as, for instance, McDonald's that quit using chicken meat with antibiotics in order to avoid human infections (Reuters, 2015). On the other hand, Subway, a pioneer in healthy food, loses market by not adopting similar attitudes (Nascimento, 2015).

Actions like the endeavored by Chipotle are seen inside and outside the company, and in their supply chain. Environmental education is a part of training to new employees; none of the ingredients used is

frozen, which saves energy and the emission of carbonic gas; they buy from local suppliers, as far as possible, reducing time and use of raw material transportation; they buy meat from animals bred in humanitarian conditions and antibiotic, hormone-free; no genetically modified ingredient is used; they invest in the *Cultivate Festival* and in *Chipotle Cultivate Foundation*, a non-profit organization. The company also takes drastic acts, such as the temporary shutdown in the supply of pork meat in one third of their restaurants, due to the non-compliance of their “responsible animal breeding” standards, by some of their suppliers (Chiptole, 2017; Teixeira Junior, 2015).

There is criticism to the communication made to companies with this market bias. Oversight is related with reference to other nutrients contained in foods proved to be healthy, which are not served, and to the high consumption of salt (Info Online, 2015).

Nevertheless, attitudes perceived by the competition and by customers of the brand, especially the Millennial generation, reflect the dissemination of the importance of sustainable development, regardless of the form of consumption (Costa & Teodósio, 2011; Dinato, 1998; Elkington *et al.*, 1990; Instituto Akatu, 2002; Lipovetsky, 1989; Mance, 2003; Portilho, 2005).

The competitive advantage developed by Chipotle is mirrored by the competition, as seen in the research findings, however there is no evidence pointing to a sustainable or transitory competitive advantage (McGrath, 2013). Nevertheless, sustainable innovation is seen as a strategy adopted, mainly by Chipotle, but also by their competition with less evidence, as they agglomerate attributes such as durability, geographical origin, use of material and energy in accordance with the principles supporting sustainable development, and with the operation market showing interest by sustainable products and services and that accepts paying more for this, because they realize the added value (Boons & Lüdeke-Freund, 2013; Domingos, 2015; Hall & Clark, 2003; James, 1997; Rennings, 2000; Reuters, 2015; Salomão, 2014; Teixeira Junior, 2015).

Chipotle does not totally adopt sustainable innovation as a strategy, as between their three defining strategies, the text of Info Online magazine (2015) points to the non-compliance of the aspect “quality of citizen’s lives” (Oksanen & Hautamäki, 2015) when reports that many of the actions taken by Chipotle and by other companies in the sector are only cosmetic. However, most of the components of a sustainable innovation strategy are suitable to Chipotle’s actions.

The development of smart cities is not being supported only by environmental actions, but is a safe field to start the development of cities with this feature. Actions of such companies contribute positively to this kind of development, yet their attitudes are not deliberately directed to this purpose. The activities towards innovation are not based on general co-creation, but demanded in a certain moment, because Chipotle, specifically, uses the cities where it has branches as platforms to activities which increase citizens’ living conditions; generate creative consumption experiments and allows the creation and re-creation of new economic opportunities, affecting their supply chain, customers and competition, however, data do not show evidence of experimentation and/or application of new technologies, and there are improvements to be made in order to avoid criticisms as the exposed by Info Online magazine (2015) (Tukiainen *et al.*, 2015).

The relationship with other actors intrinsic to the quadruple helix is not evidenced in the data found, thus, Chipotle can not be considered a living lab as well, due to its organizational configuration, which is processual, market innovation-looking instead of an integration network of investigative user-centered open innovation. Nevertheless, there is evidence that generate investigatory curiosity regarding the validation of innovation in the environment (Eriksson *et al.*, 2005). Thus, a reorganization of the company can characterize it in a living lab typified as a testing environment towards the introduction of new applications by means of its exposure and validated by the final users (Følstad, 2008).

Chart 2- News summary

Date of Publication	News Title	News Summary	Author
04/17/08	Management & Ideas	Former <i>Chef de Cuisine</i> and current CEO of the company, Steve Ells is concerned about the environment, for this reason adopted practices such as buying meat from suppliers with animal-friendly creation and slaughter practices. The position of the company attracts a great amount of customers and the advertising is made voluntarily by word of mouth.	Exame
09/12/13	Chipotle does campaign on the cruel food industrialization	Company launches game on food industrialization, where people invisibly finance abuse and cruelty.	Carlos Merigo (Brainstorm #9)
01/28/14	Chipotle satirizes industrial-scale agriculture	The company stands against cruelty in food industrialization process and focus on launching a TV show that satirizes industrial-scale agriculture. By means of Animal Oil, a fictitious industry, the company makes its environmental sustainability philosophy clear.	Amanda de Almeida (Brainstorm #9)
12/08/14	Companies which have joined the gourmet fashion	The number of restaurants offering better quality food and more consumer-friendly experiences by adapting products to healthier, greener versions is increasing.	Karin Salomão
03/04/15	McDonald's will eliminate chicken which has received human antibiotic drug	McDonald's acts similarly to smaller food businesses by not consuming chicken meat containing antibiotics used against human infections. It is a timid attitude compared to other chains in this sector to force poultry farmers to change practices in the fight against dangerous superbugs.	Reuters
06/16/15	Success in Brazil, Subway loses space in the USA	Subway loses market to competitors who offer nutrient-dense, low-fat, preservative-free and agrochemical-free, which are highlighted by a fresher and healthier food, which makes this industry pioneer far behind. Americans prefer to spend a little more to consume products from a company that cares about the origin and preparation of the ingredients.	Talita Nascimento
07/15/15	Chipotle, the anti-McDonald's, is the fast-food of the new generation	The food chain founded by Steve Ells, CEO of the company, represents a change of customers' preferences, more and more interested in knowing what they are eating. None of the ingredients used in Chipotle is frozen. They buy from local suppliers, the meat come from hormone and antibiotic-free animals bred in humanitarian conditions. In April 2015, the company has banished any genetically modified ingredient. The investments in communication intends to make public their mission of serving "food with integrity". Still in 2015, they announced that one third of their restaurants stopped serving pork because one of their suppliers have not accomplished their standards of animal "responsible breeding". This news positively impacted the market. Traditional fast-food companies are reviewing their practices to win back the customers interested in conscious consumption, presenting themselves as "the Chipotle of thai food" or "the Chipotle of barbecue".	Sérgio Teixeira Jr.
09/15/15	How to grow 28% while the competitor drops 2%	One of the reasons of success of the company is the Millennials generation, or generation Y (people born after 1980), it is a generation more aware, concerned about the environment, social issues, and especially with what they are eating. This generation wants to launch movements, influence people and change cultures. The company was able to mobilize this generation, and now has many followers who look to pass on their actions and strengthen its image. The statement on the temporary stop of pork offering, one-third of its stores due to poor animal treatment had a positive impact and spontaneous media, with contents of support and admiration.	Carlos Domingos
10/05/15	Americans are more and more interested in the quality of their foods	Michael Jacobson, Director of the Centre for Science in the Public Interest (CSPI), a research organization, reports that many measures announced by the giants of food industry are only cosmetic, and despite attitudes like Chipotle's of quit using genetically modified food and meat from animals raised using antibiotics, these companies continue to serve foods with large amounts of salt and little vegetables or fruits. Such attitudes, in the view of experts, are not enough to revolutionize food concepts in the USA, a country with 78.5 million obese adults. For Kris-Etherton the most important thing is the information given to people.	Info Online
07/07/16	Chipotle again criticizes industrial production with animation	Presents a new animation movie which shows the importance of little crops and criticize the production methods of food industries.	Exame
06/23/16	Five ways of drawing the customers' attention with authenticity	The many ways of drawing the customers' attention. Chipotle focus on social impact of the brand using a short film as a criticism to industrialized agriculture.	Exame
01/12/16	Transforming brands in spectacles: the power of events and games	Chipotle uses the short film Scarecrow as a criticism to industrialized agriculture and strengthens its brand.	Marcos Bedendo

Source: Prepared on the basis of Exame Magazine

FINAL CONSIDERATIONS

This study shows that Chipotle is an important actor in the contribution for the development of smart cities. The strategy of sustainable innovation is significant to characterize the organization as a relevant actor for this purpose. Their concern with the environment is an example to be followed by other organizations that, when develop educational actions, indirectly disseminate the importance of environmental quality, contributing to the development of smart cities in their regions.

On the other hand, Chipotle needs changes to make wider approaches, given the routine evidences to the living lab. As shown in the literature, a living lab is the most complete environment for the endeavor and testing of actions and innovations, with the objective of developing smart cities. Nevertheless Chipotle was not institutionalized with this goal, which is why they do not have all features needed to be characterized this way.

The author suggests the extension of this study for other national News basis, and further for International ones, besides interview companies and their customers to back on findings that show other forms of using the strategy endeavored by the company. This way, the indications that can be strengthened may be confronted with the findings of this study regarding the development of smart cities. Another suggestion is a deep investigation in order to qualify the competitive advantage of the organization as transitory or sustainable.

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