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URBAN FARMING AS COMPETITIVE RESOURCE IN FOOD SERVICES: AN EVALUATION THROUGH THE RESOURCE-BASED VIEW THEORY

AGRICULTURA URBANA COMO RECURSO COMPETITIVO EN SERVICIOS ALIMENTARIOS: UNA EVALUACIÓN POR MEDIO DE LA TEORÍA DE LA VISIÓN BASADA EN RECURSOS

AGRICULTURA URBANA COMO RECURSO COMPETITIVO EM SERVIÇOS ALIMENTARES: UMA AVALIAÇÃO POR MEIO DA TEORIA DA VISÃO BASEADA EM RECURSOS

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ABSTRACT: This article is a study about the allocation of urban agriculture (UA) as a competitive resource to restaurants. The world population has become increasingly urban and shows increasing concern by the quality of food consumed. Thus, owners and chefs of restaurants aim to acquire locally grown food or even grow them in their own establishments, in order to guarantee food with high nutritional value and freshness. Based on this context, the objective is to assess the impact of urban agriculture in the competitiveness of a restaurant that uses the urban cultivation of food as one of the key elements featured in their services. This research is a case study of a qualitative approach and descriptive. The case investigated is a restaurant located in the metropolitan region of Porto Alegre, State of Rio Grande do Sul, Brazil, which introduced the practice of UA on its premises. The data were obtained through documentary research, semi-structured interviews, and direct observation and were analyzed by categorization of information and data triangulation to later be evaluated through the VRIO model. The results point to the development of competitive advantage through the UA when combined with conceptual and technological elements.

KEY WORDS: Urban Agriculture. Restaurants. Food Services. Resource-Based View.

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RESUMEN: Este artículo presenta un estudio sobre la inserción de la agricultura urbana (AU) como un recurso competitivo para los restaurantes. La población mundial se ha vuelto cada vez más urbana y tiene una creciente preocupación por la calidad de los alimentos que consumimos. Así, dueños de restaurantes y chefs han procurado adquirir alimentos cultivados localmente o incluso hacerlas crecer en sus establecimientos, para garantizar un alimento de alto contenido nutritivo y más fresco. Con base en este contexto, el objetivo es evaluar la influencia de la agricultura urbana en la competitividad de un restaurante que utiliza el cultivo urbano de alimentos como uno de los elementos clave de sus servicios. Esta investigación es un estudio de caso cualitativo y descriptivo. El caso investigado es un restaurante ubicado en la región metropolitana de Porto Alegre, estado de Rio Grande do Sul, Brasil, quien introdujo la práctica de la AU en sus locales. Los datos fueron obtenidos a través de la investigación documental, entrevistas estructuradas y la observación directa, y fueron analizados por la categorización de la información y la triangulación de datos para posteriormente ser evaluados mediante el modelo VRIO. Los resultados apuntan hacia el desarrollo de una ventaja competitiva a través de la UA cuando se combina el marco conceptual y elementos tecnológicos.

PALABRAS CLAVE: Agricultura Urbana. Restaurantes. Servicios alimenticios. Visión Basada en Recursos.

RESUMO: Este artigo apresenta um estudo acerca da inserção da agricultura urbana (AU) como recurso competitivo para restaurantes. A população mundial tem se tornado cada vez mais urbana e apresenta crescente preocupação com a qualidade dos alimentos que consome. Assim, proprietários e chefs de restaurantes têm buscado adquirir alimentos cultivados localmente ou mesmo cultivá-los em seus estabelecimentos, de forma a garantir um alimento mais fresco e de alto teor nutritivo. Com base neste contexto, objetiva-se avaliar influência da agricultura urbana na competitividade de um restaurante que utiliza o cultivo urbano de alimentos como um dos elementos de destaque em seus serviços. Esta pesquisa consiste em um estudo de caso qualitativo e descritivo. O caso investigado é o de um restaurante localizado na região metropolitana de Porto Alegre, estado do Rio Grande do Sul, Brasil, que introduziu a prática da AU em suas dependências. Os dados foram obtidos por meio de pesquisa documental, entrevistas semiestruturadas e observação direta, e foram analisados por categorização das informações e triangulação de dados para posteriormente serem avaliados por meio do modelo VRIO. Os resultados apontam para o desenvolvimento de uma vantagem competitiva por meio da AU quando combinada a elementos conceituais e tecnológicos.

PALAVRAS-CHAVE: Agricultura Urbana. Restaurantes. Serviços Alimentares. Visão Baseada em Recursos.

INTRODUCTION

Urban Agriculture (UA) is any activity of intensive food cultivation carried out in urban environments and usually occurs in idle spaces, both horizontally and vertically, internally or externally. It is an emerging topic in the agribusiness sector that has been widely discussed in the political and academic circles given its growing importance as an alternative feeding for increasingly urbanized societies.

In addition to promoting food security and generating jobs and income, which is why it is a constant debating topic, UA initiatives employ a variety of

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farming techniques that can be adapted to small spaces. Since the activity is geared towards proximity to urban markets, according to Smit, Nars, and Ratta (2001), the reduced logistics for access to cultivated products is a great benefit because it enables almost instantaneous delivery of fresh products with assured nutritional value.

The world population is increasingly concerned with healthier and higher quality food, and in this way, owners and chefs of restaurants are seeking to acquire cultivated food nearby (Scneider, 2013). The goal is to obtain raw material at the time of preparation so that the dish offered holds the highest nutrient load possible and is delivered with its freshness assured. To meet this purpose, several restaurants and other food establishments turn to UA in search of alternative crops as close as possible to where food will be consumed.

Specht and Siebert (2014) claim that the adoption of food cultivation techniques by foodstuff companies can constitute a tool for building the establishment's image. In addition, for Van der Schans et al. (2016), UA can function as a differentiation strategy, since the activity runs beyond the traditional supply chain model.

In order to UA be able to constitute a competitive advantage, it is necessary to evaluate the practice as a business resource. For this, the Resource-based view – RBV, provides the necessary elements for this evaluation. Santos, Gohr, Cruz, and Cunha (2015) affirm that the RBV is the current strategic thinking which considers internal resources of the organization as responsible for the constitution of their powers. By means everything that can be understood as a strength or weakness of the organization, and should be a source of competitive advantage for being considered at the time of the delineation of organizational strategies (Wernerfelt, 1984; Barney, 1991; 2001).

Based on this context, this study aims to determine whether or not the adoption of urban agriculture by restaurants and other establishments of food services can contribute to the development of a sustainable competitive strategy.

The overall goal of this article is to evaluate the impact of UA in the competitiveness of a restaurant that applies urban farming as one of the key elements featured in their services. To achieve this purpose, the study sought the motivations that led the enterprise to adopt the urban farming in its premises; knowing the products cultivated in the establishment and the way in which they are used; identify how the practice of UA is inserted in the activities of the establishment; and evaluate how the UA affects the services provided by the restaurant. This research is a qualitative and descriptive study case. The selected case is a restaurant located in the metropolitan region of Porto Alegre, State of Rio Grande do Sul, Brazil, which introduced the practice of UA on its premises. For this study were used as data collection tools the documentary research, structured interviews, and direct observation.

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The analysis of the obtained data was performed through categorization and data triangulation to fit the Barney and Hesterly's VRIO model (2006), for the evaluation of the competitiveness of the resource in question. This model was developed based on the RBV theory, which abbreviation is formed by the initials of the words value, rarity, imitation, and organization, that represents questions to be made in the implementation of this tool.

After evaluating UA as a restaurant resource by the VRIO model, it can be perceived that the UA alone may not be a resource that generates competitive advantage. However, when allied to other resources and bet as a conceptual element linked to the image and philosophy of the enterprise, it may constitute a high differentiation factor, and even to raise sustainable competitiveness, especially by aggregating technological and conceptual innovations.

This research is justified by the lack of scientific studies that relate the UA to businesses and non-profit organizations. Mostly, research into the UA deal on food and nutritional security and employment and income generation, especially for low-income and vulnerable populations. However, the practice of growing food in urban environments can serve the most different purposes, in the most varied situations.

This study consists of a theoretical review, which holds forth on matters related to the theme: urban agriculture and its insertion in restaurants, the Resource-based View theory and the method of evaluation of competitiveness VRIO Model. Besides, it presents the detailing of the methodological procedures used, as well as the contextualization of the case investigated, the results and discussions about the information obtained, as well as the final considerations, which suggests possibilities for future studies.

URBAN AGRICULTURE

The Food and Agriculture Organization of the United Nations [FAO] (1996), conceptualizes UA as all food production that is carried out in urban environments. The cultivation takes place in backyards, roofs, community gardens or vacant lots, and comprises commercial production actions in greenhouses and open spaces, more frequently in small scale. On the other hand, Smit et al. (2001) present a more specific concept of UA, which will be considered in this study. The authors state that UA consists of an activity located in urban areas, that produces, processes and markets food. This activity applies intensive production methods, uses natural resources and reuses urban waste, thus contributing to the food security, health, and livelihood of individuals, families, and communities.

Although sometimes perceived as contradictory, the practice of growing food in urban areas is not exactly groundbreaking. Studies show that the relationship between agriculture and urban environment dates back to the ancient times of human history, although the exact historical moment in which segregation between agricultural practice and the urban environment occurred is unknown

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(Tornaghi, 2014). Warren, Hawkesworth, and Knai (2015) state that, in the recent past, most UA initiatives have taken place in developing countries, primarily as a way to meet the food needs of the poor.

According to data from the United Nations World Urbanization Outlook report, approximately 54% of the world's population lived in urban areas in 2014. The projection for 2030 is to reach 60% and by 2050 reach 86% in developed countries and 67% in developing countries. This rapid urbanization goes hand in hand with the rapid growth of poverty and urban food insecurity, as the generally food-producing rural population has shown a notoriously mild growth (Hoornweg & Munro-Faure, 2008; United Nations & Department of Economic and Social Affairs - Population Division, 2014).

As stated by Mougeot (1994), food security is the most relevant concept in the UA and has been the argument most strongly used by politicians and planners to implement the activity in the municipalities. According to Nugent (2000), even in places where UA does not contribute significantly to job creation, food security is a major concern for producers and is affected by the quantity and quality of available food. Hoornweg and Munro-Faure (2008) state that food security exists when everyone at any time has physical, social and economic access to a sufficient amount of safe and nutritious food that meets their needs and preferences for an active and healthy life.

On the other hand, urban diets are experiencing a nutritional transition, which refers to changes in food consumption and their impact on nutrition. In general, urban centers have a higher intake of salt, fats and oils and sugar - mainly from canned goods and fast foods - elements that lead to rising overweight, obesity and malnutrition, related diseases such as diabetes and increasingly recurrent heart problems worldwide (FAO, 2017). The International Food Policy Research Institute [IFPRI] (2016) supports FAO's claims and states that in countries with rapid urban development occurs what the Institute called the triple burden of malnutrition. This burden includes the coexistence of hunger, characterized by insufficient caloric intake to meet dietary energy needs; malnutrition, which is prolonged inadequate micronutrient intake; and over nutrition, glimpsed in the form of overweight and obesity.

The rapid urbanization and the population growth increase the global pressure for innovative food and agricultural systems already emphasized by climate change, environmental degradation and the allocation of natural resources away from agriculture. The changes that are taking place in the way the population feeds, seeking healthier and more nutritious foods, require more intensive use of resources (Fan, Cho & Rue 2017).

In this sense, Hovorka (2005) states that to achieve urban productivity and sustainability, UA is a key element. The topic is becoming a required field of research in the search for sustainable alternatives to food security on a planet where the majority of the population will live in urban spaces. Growing pressure for engagement in climate change prevention and food security raised urban

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farming on the agendas of countless cities (Tornaghi 2014). According to the Comité de la Agricultura [COAG] (1999), the growth of urban farming is due to its adaptability and mobility compared to traditional/rural agriculture. As cities expand, the boundaries between urban, peri-urban and rural activities blur, offering opportunities to establish advantageous relationships.

In Brazil, discussions about UA culminated in the establishment of the National Program for Urban and Peri-Urban Agriculture, through Ordinance No. 467 of February 7, 2018, linked to the Ministry of Social Development [MSD]. The program aims to establish partnerships in order to promote urban agriculture and encourage the development of actions aimed at the management and improvement of urban and peri-urban agriculture initiatives (BRASIL, 2018). According to Smit et al. (2001), UA can be applied to the most diverse contexts, from home environments to diverse commercial enterprises, as is the case of the restaurant investigated in this study.

In addition to promoting food security and job and income generation, UA initiatives employ different cultivation techniques and use both horizontal and vertical spaces, which enables cultivation to be adapted to different situations. Since the activity is focused on proximity to urban markets, which predisposes it to the cultivation of perishable products, the logistics for access to cultivated products is a great benefit, as it enables the almost instant delivery of fresher products with assured nutritional value (Smit et al., 2001).

According to Schneider (2013), individuals are increasingly seeking to acquire fresh, tasty and high-quality food. In order to satisfy these cravings, restaurant owners and chefs are paying attention to nearby spaces, seeking locally produced food from neighboring urban farms or even creating their own vegetable gardens. The intention is to harvest the products on the same day or at the moment they will be prepared, thus the nutrients remain in greater quantity in the food.

Also, UA can incorporate part of the urban solid and liquid waste into the production process, helping to manage household or corporate waste (Smit et al., 2001). The adoption of environmental management practices was observed as a strategy to build customer loyalty, according to Marques, Lopes, and dos Santos Claro (2012). Following this claim, a growing number of restaurant owners practice UA not only by growing their own raw materials but also by purchasing produce from nearby farms or small farmers and supplying organic waste for composting (Cohen, 2014).

In this sense, several enterprises have joined the UA as a way to promote better quality food offered to customers and support sustainability. One example is the Accor chain of hotels, which started to use food from local farms in their restaurants and implemented an action plan that includes their own production of part of the ingredients used in their recipes through UA in their establishments (Accor Hotels, 2018). Another example is the Hotel QO Amsterdam, which has set up a rooftop garden, where it produces various fruits, vegetables, spices, and

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even fish. Through the hydroponics system, the water used in the ponds where the fish are raised also serves to cultivate the other products in a mutual interaction cycle (Zupancic, 2018).

According to Specht and Siebert (2014), the use of greenhouses or other forms of food cultivation by food companies may not be the main source of income – such as restaurants that produce, process and sell food – but can serve as a tool to build the image of the establishment. According to Van der Schans et al. (2016), UA can function as a differentiation strategy for the establishment, since the activity is distinguished from the traditional supply chain. For the authors, one of the main elements of differentiation of the activity is the transparency regarding the origin of the products, the place of cultivation and the production conditions, which simplify the identification of the quality expected by customers. UA can serve as a differential by enabling the cultivation of specialties, vegetables, and ethnic vegetables and more perishable but also tastier varieties.

The differentiation strategy aims to provide other goods and services in addition to the core business activity. In the case of UA, it can be done not only through production but also through processing and distribution by the business itself, in a system known as vertical integration. By controlling the various stages of the production chain, the food establishment is able to gain greater profitability or to maintain a competitive advantage by using its resources (Van der Schans et al. 2016). The concept of an enterprise's resource is explained through the resource-based view theory explained in the next chapter.

RESOURCE-BASED VIEW THEORY

The Resource-based view theory [RBV] is the stream of strategic thinking that considers the organization's internal resources to be responsible for shaping its competencies (Santos et al. 2015). A resource is meant anything that can be understood as a strength or weakness of the organization, be its assets, organizational processes, capabilities, knowledge or information that the firm controls. According to Wernerfelt (1984) and Barney (1991, 2001), resources must be sources of competitive advantage, and its consideration is indispensable at the time of the organization's strategic definition. Andrade and Polo (2018), based on Michael Porter's studies, corroborate such assertions by ensuring that in RBV it is the firm-specific resources that lead to competitive advantage.

For proper strategic development based on RBV, the true identity of the resources available in the organization is indispensable. Wernerfelt (1984) sets out a basic and easily applicable classification: the division of resources into tangible and intangible. Tangible resources are those that are visible and consist of everything that is a material asset of the company, such as equipment and facilities. Intangible resources are more difficult to identify, as they consist of immaterial goods, such as knowledge, organizational culture, reputation, learning, brand, among others. Intangible assets provide greater support for competitive advantage as they generally have a higher inimitability factor than tangible assets.

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Barney (1991) presents a more specific classification, which is inserted in the one presented by Wernerfelt (1984), citing three categories of resources: physical, human and organizational. Grant (1991) further covers three other categories of resources: financial, technological, and reputational. Table 1 depicts the six categories mentioned by Barney (1991) and Grant (1991), separated according to the classification by Wernerfelt (1984) and detailed based on the contribution of Carvalho, Prévot, and Machado (2014).

Table 1: Organizational resource classification

Tangible	Physical	Equipment, buildings, location
	Financial	Equity or third party, budget
Intangible	Human	Training, skills, tacit knowledge, entrepreneurship, experiences
	Technological	Systems, patents, innovations
	Organizational	Management, culture, marketing, internal processes, quality control, planning, information
	Reputational	Relationships, brand, image, reputation

Note. Developed by the author based on Wernerfelt (1984), Barney (1991), Grant (1991), Carvalho, Prévot, and Machado (2014).

The main purpose of categorization is to reflect the reality of organizational resources for accurate and transparent planning. The resources reported in Table 1 are examples not limiting, and there may be several other resources in each of the categories depending on the company analyzed.

According to the RBV, from the identification of resources and their categorizations, it is necessary to evaluate whether or not a given resource is strategic. The organization will be able to devise sustainable strategies from this assessment and support them with resources that can truly ensure competitive advantage. Besides, through such an assessment the company can improve deficit resources or devise ways to protect its essential resources (Santos et al. 2015). Only sustainable strategic resources can compose entry barriers, which occur due to market disparities (Wernerfelt, 1984; Barney, 1986).

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However, Barney (1991) states that for firm resources to be sustainable, they must meet certain attributes: being valuable, rare, inimitable and irreplaceable, as shown in Table 2.

Table 2: Attributes for the sustainability of firm resources

Attribute	Description
Value	The valuable resource should serve to exploit opportunities in designing and implementing strategies that increase business efficiency, while counteracting threats in the environment in which the organization operates.
Rarity	The rare feature is one that is not available in several companies at the same time. If a large number of organizations have the same valuable resource, it ceases to have characteristics of rarity and does not constitute competitive advantage for any of the firms that own it.
Imitability	The rare and valuable resource must be imperfectly imitable by companies that do not have it in order to generate sustainable competitive advantage as it makes the company a differentiator.
Irreplaceability	This value is presented when there are no near or easily accessible strategic resources that can serve the same purposes.

Note. Adapted from Barney (1991).

From these precepts, Barney and Hesterly (2006) elaborated a method capable of analyzing the types of resources a company has, to easily determine if such resource is indeed strategic. This method is elucidated in the next chapter.

VRIO MODEL

Based on the RBV theory, Barney and Hesterly (2006) developed a method for analyzing any resources and capabilities an organization possesses, as well as determining the potential for generating competitive capacity. Joining RBV with positioning theory, this method became known as the VRIO Model, whose acronym is formed by the initials of the words value, rarity, imitability, and organization, which in the model segment questions to be asked in the application of the method, as shown in Table 3.

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Table 3: *Questions of VRIO model*

Segment	Question
Question of value	Does the feature enable the company to seize an opportunity and/or neutralize a threat?
Question of rarity	Is the resource controlled by a small number of competitors?
Question of imitability	Do companies that do not have the resource face high costs to obtain or develop it?
Question of organization	Are company policies and procedures organized to provide support for the proper use of valuable, rare and inimitable resources?

Note. Adapted from Barney and Hesterly (2006).

These questions should be asked after the survey of organization's resources and applied to each of them, so you can determine which resources are truly competitive, which represent strengths and weaknesses and thus identify those that can be reconfigured to more representativeness within the strategy. Table 4 presents the results that the VRIO Model indicates according to the evaluation findings.

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Table 4: *Competitiveness analysis through the VRIO Model*

Is a resource or capability:					
Valuable?	**Rare?**	**Costly to imitate?**	**Exploited by organization?**	**Competitiveness**	**Strength or Weakness**
No	-	-	No	Competitive disadvantage	Weakness
Yes	No	-		Competitive parity	Strength
Yes	Yes	No		Temporary competitive advantage	Differentiated strength and competence
Yes	Yes	Yes	Yes	Sustainable competitive advantage	Differentiated and sustainable strength and competence

Note. Adapted from Barney and Hesterly (2006).

The definition of resource competitiveness by the VRIO Model is given by the combination of characteristics of each resource analyzed. As the resource or competence proves to meet more criteria, the more competitive it is, representing a different strength of the organization. Leonidou, Leonidou, Fotiadis, and Zeriti (2013) show that RBV has manifested itself as an appropriate theoretical basis for explaining the background and results of adopting an ecologically sound strategy in the hotel sector. In the same idea, Zhou, Maumbe, Deng, and Selin (2015) understand that the resource-based view provides a clear picture of the strengths and weaknesses of the resource in a destination. Thus, it can be stated that RBV can be applied to the food sector, especially in restaurants, since these establishments are part of the field of hospitality and tourism, as stated by Ottenbacher, Harrington, and Parsa (2009).

RESEARCH METHODOLOGY

This research is characterized as a case study, which is a procedure applied to contemporary themes and inserted in some context of reality, according to Yin (2015). This research will investigate the case of a Brazilian restaurant located in the metropolitan region of the state of Rio Grande do Sul, which introduced the practice of UA in its facilities.

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The study is characterized by a qualitative approach since it analyzes subjective elements, not quantifiable; and descriptive character since it describes existing context and practices in the market. According to Yin (2015), the case study requires the use of various data collection tools. The following tools were used for this study: documentary research through the establishment's e-mail address, videos, and other promotional materials; structured interview by e-mail with one of the founding partners of the business; and face-to-face semi-structured interviews with two team members - front-line collaborators and another founding partner. These interviews were conducted in a single visit, on the premises of the establishment, lasting an average of 20 minutes. In addition, shortly after the semi-structured interviews, direct observation was conducted, guided by a pre-defined script, presenting as main observation elements: the presence of urban culture in the restaurant environments; the presence of newsletters that help the client understand the importance of the resource; and presence of resource relevance cues for team members.

The analysis of the obtained data was performed through data triangulation, mainly for the construction of the case explanation, and through categorization of the information. The criteria established for the analyzes were: relevance of the resource to the image of the establishment; contribution to revenue generation or reduction of costs/expenses; number of resource holders; exclusive forms of exploitation; difficulty of reproduction or copying; high costs for the implantation; integration of the resource in the culture of the establishment; relevance in the end activities. These analysis criteria were established a priori, based on the attributes of the VRIO model, subsequently applied to assess the competitiveness of the investigated resource.

THE STUDIED CASE

The restaurant investigated in this study has as its mission a fairly audacious idea: redefine the future of food. Construction of this venture began in 2015 when its founders began a search for in-depth information related to the food market. The first destination was Europe, where they realized there was a gap between artistic and nutritional cuisine. Then was decided that they would position the venture exactly in this gap to provide flavor to nutritious food and nutrition to artistic food, also called gourmet. With this in mind, they set off for the United States, where they discovered the potential of urban food production, studied diverse preparation techniques, and deepened plant-based food. Among the techniques learned and widely used by the restaurant is raw food, which consists of the consumption of live food, also known as crudívora in Brazil. In this technique, foods – predominantly vegetables, go through little or no cooking process, thus preserving their nutrients to the maximum.

After two years of in-depth studies and investments, the restaurant began its activities to undertake a socio-environmentally engaged brand that would provide not only healthy food but that represents a concept and offers an improvement in

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the lifestyle of all involved – staff, customers and suppliers. According to one of the founding partners, the restaurant aims to include cleaner, closer and safer food, using the best preparation techniques to ensure that the food delivered is at its greatest potential.

To meet this goal, the restaurant operates directly at both ends of the chain: cultivation and consumption. The enterprise's ideology is to produce tastier, more nutritious and fresh and less environmentally impactful foods by growing as close as possible to where it will be consumed. To this end, it was originally considered the possibility of making the space where the restaurant is today in a large urban farm, in the traditional model of UA, filling the green spaces, as reported by one of the partners. However, the idea proved unfeasible. Thus, in order to produce part of the raw material needed within the establishment itself, automated modules were developed for the internal cultivation of vegetables, such as vertical UA.

These modules, according to one of the partners, were designed by a team of two engineers, a biologist, and an environmental engineer, engaged in the development and improvement of this technology. From the implementation of the modules, the establishment aims to create an urban hyperlocal supply network, with individual producers producing food in their homes and later selling it to the restaurant. Managers argue that any home can become a food producer through protected cultivation, either for own consumption or for commercialization. This network currently has only two urban farmers, as it was in its pilot phase during this research. The idea is that in 2019 it would be possible to start recruiting new farmers for the official implementation of the network.

According to the managers, indoor controlled cultivation – in the developed modules, avoids the loss of food due to the weather, avoids water waste through the reuse of water in production and facilitates organic cultivation by keeping pests away. Also, it minimizes environmental impacts as fuel consumption is reduced due to the shorter distances that food must travel to reach the place of consumption. Vegetable cultivation in a controlled environment allows the creation of an ideal atmosphere for plant development, due to the precision in the control of the determining elements for their healthy growth. With the aid of automation, each species receives optimal daily levels of water, light, and nutrition according to their life stage. In this way, the venture can guarantee production throughout the year.

In the modules, only the so-called microgreens are produced, which are vegetables harvested at an early stage of growth – between 7 and 14 days after germination. According to the team, at this stage, the plants are tastier and especially more nutritious and can contain up to 40 times more nutrients than adult plants. Wheatgrass and six species of microgreens: arugula, beet sprouts and kale – a species of curly lettuce, are currently grown in the establishment's internal production modules. These vegetables are introduced in most dishes served, given their high nutritional properties, as can be observed in the restaurant menu. The other products used in the preparation of the dishes are purchased from local organic producers, always ensuring their origin and quality.

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To keep customers aware of how the food served is produced, the team eventually organizes field trips that allow consumers to visit and interact with those who produce the first stage of the food that arrives at their table. Also, the restaurant hosts an organic street fair once a week where partner producers can sell their fresh produce directly to consumers. The restaurant also has a team of professionals engaged in constant research to find new technologies and different species of plants that can be grown internally and that will provide an increasingly healthy and nutritious diet.

The found ways to materialize the purpose of redefining the future of food, according to the founder, happens on five fronts: bringing customers closer to a more nutritious and responsible diet; the implementation and incentive to the UA; the promotion of weekly organic street fairs at the establishment; the development of products that replace some of the processed foods on the market and do not deliver benefits to human health; and the implementation of a platform for expanding awareness and education about nutrition. Through these five fronts, the team believes it will be possible to democratize access to high quality and clean food.

EVALUATION OF URBAN AGRICULTURE RESOURCE BY VRIO MODEL

For the evaluation of UA using the VRIO model one must initially answer the questions established by the authors, Barney and Hesterly (2006), to later evaluate the set of responses obtained and determine the sustainability and validity of the resource.

Question of value: Does the resource enable the company to seize an opportunity and/or neutralize a threat?

According to Smit et al. (2001), the practice of UA can be introduced in the most diverse types of enterprises, as a main or complementary business activity. In the case of the restaurant investigated, the UA appears as a complementary activity, not being the main focus of the business. However, it is strongly integrated with the image and philosophy of the enterprise, so much so that the name of the establishment - not disclosed in this work by the researcher's choice, and its visual presentation carry its concept. Thus, UA is more intangible than a tangible resource, since it is part of concepts and philosophies explored by the organization. According to Hoskisson, Hitt, Duane Ireland and Harrison (2009), over time the value creation of a given resource may be reproduced by the competition, and thus strategies must be aligned with intangible resources, which are more difficult to reproduce than the tangibles. That said, it turns out that the restaurant sought to align the UA resource with the organizational culture, turning it into an intangible resource.

The restaurant seeks not only to offer healthy eating but also to raise awareness of the best eating practices and diets. In this sense, UA occupies a prominent place in the venture, as it provides the availability of products cultivated

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by organic techniques and without harming the environment throughout the year. Also, managers draw attention to income generation for the current urban producers' partners, who grow food in their homes and pass it on to the restaurant on the day it will be used to prepare the dishes. This benefit is one of the most important points for the future configuration of the urban producer network that the restaurant aims to form, among the reduction in transportation costs of the purchased raw materials. Managers also claim that the feature is a source of customer appeal, given UA's intrinsic philosophy. Thus, the resource gives sustainability to the enterprise, and without the use of it, the ideology on which the business was developed would no longer make sense.

According to Allen, De Brauw and Gelli (2016), the food value chain encompasses all existing actors and activities along the production chain, including inputs and production, storage, transportation, distribution, processing, and consumption. The authors also state that interventions in this value chain that have the purpose of improving the nutritional level and sustainability should involve several stakeholders. The restaurant investigated, through the UA resource, encompasses in its own operating structure different stakeholders in the vertical integration system, mentioned by Van der Schans et al. (2016).

Barney (1991) states that a valued resource has a direct impact on its results, either by reducing its costs or increasing revenues, improving the efficiency of the enterprise and neutralizing threats. Given the above scenario, it can be stated that the UA acts as an extremely valuable resource for the restaurant since in addition to promoting a reduction in the acquisition costs of raw materials, UA figure as an attractiveness element of the target audience of the establishment.

Question of rarity: Is the resource controlled by a small number of competitors?

The investigated restaurant was not the pioneer in the implementation of the UA within the establishment itself, although it was the first to use it so effectively and integrated. The competing establishment, which was the pioneer of UA in restaurants in the locality – although it applied it in a more trivial way, closed its activities in 2018. Thus, the investigated restaurant appears as the only establishment to have its own food cultivation used in dishes delivered directly to consumers. This fact goes alongside Barney (1991), who claims that the issue of rarity analyzes the accessibility of the resource to competitors, after all, if the resource is valuable and owned by more than one organization, what exists is a competitive parity where no organization has advantages.

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The use of indoor controlled cultivation modules is only done by this establishment and by its own technology, with high investment value bet. This factor generates an entry barrier to be considered by the competition, according to Wernerfelt (1984) and Barney (1986). Also, it is the only establishment to highlight UA in its activities and to promote and encourage more and more individuals to become urban farmers, both as partners of the establishment and for their own food benefit.

Barney (1991) states that rarity exists when the resource is not controlled or exploited by several companies at the same time. According to the author, the fewer existing or potential competitors holding the resource, the greater the chances of this resource appear as a competitive advantage. Since UA is not used by any competitor in the region, especially in such a consolidated and innovative way, it can be considered as a scarce resource.

Question of imitability: Do companies that do not have the resource face high costs to obtain or develop it?

According to Barney (1991), imitability, or rather, inimitability is the difficulty of competitors to implement or develop resources that the organization already owns. Innovative endeavors seek to create obstacles to the reproduction of their resources, to reduce or eliminate the possibility of imitation and consequent loss of competitive advantage.

From the COAG (1999) point of view, UA is a resource that can be easily adopted as it implies few or no entry barriers. Under that statement, it could be argued that competing establishments would easily replicate the resource. However, the investigated restaurant only grows food within the indoor controlled cultivation modules, which were developed by its team, from the study of cultivation techniques appropriate to the varieties of plants that are produced locally. Thus, the restaurant is the holder of the technology, due to the mastery of the specific knowledge needed to implement this form of cultivation. In addition, the cost of developing and implementing this cultivation model by competing establishments is high, constituting an entry barrier, as already mentioned.

Nevertheless, the restaurant has created an urban food supply system through a network of urban farmers who deliver their produce to the establishment. The members of this network receive the modules for the cultivation to take place in their own homes. The operation of this production and supply network, to be copied by competitors, requires time, effort and high investments, thus configuring a difficult to imitate resource. According to Barney (1991), when the resource cannot be perfectly copied by the competition, there is the inimitability factor.

Question of organization: Are company procedures organized to provide support for the proper use of valuable, rare and inimitable resources?

The question of organization, according to Gomes (2019), stablishes that to obtain real competitive advantage, besides the value, rarity and inimitability factors, the venture needs to be orderly to take advantage of the resources and

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capabilities. For the author, the organization is a complementary component of resources and capabilities, since they alone do not generate competitive advantage, only when combined with other resources.

As mentioned earlier, UA is part of the business philosophy. This way, all team members know and master the subject, and most of them help with the restaurant's production. The establishment relies on constant research by the engineer team to improve applied cultivation techniques and cultivated species. Likewise, they have specialists who seek the best techniques of food preparation, to keep the nutrition level of each one high, adding flavor to each preparation.

Also, there is a special focus on the inclusion of products grown in the establishment itself in almost all recipes, to show the importance of UA for future food, as managers call it. For the team, UA contributes to the production of a clean food that is free of pesticides, highly nutritious and environmental respectful. And these concepts are evidenced by the restaurant. Hoskisson et al. (2009) state that the essential resources, capabilities and competences are determining characteristics for the basis of competitive advantages. In the case of the investigated restaurant, the entire team, whether employees or suppliers, know and are engaged with the philosophy of the enterprise and help to spread the idea, to gain more and more adherents of healthy and socio-environmentally correct eating.

Response set and result assessment:

From the answers to each of the questions established by Barney and Hesterly (2006), it is possible to assess whether the resource consists of a strength or weakness of the establishment and the level of competitiveness provided by it. Table 5 shows the answers obtained and presents the result of the evaluation.

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Table 5: UA resource analysis in the case study using the VRIO Model

Is a resource or capability:					
Valuable?	**Rare?**	**Costly to imitate?**	**Exploited by organization?**	**Competitiveness**	**Strength or Weakness**
No	-	-	No	Competitive disadvantage	Weakness
Yes	No	-		Competitive parity	Strength
Yes	**Yes**	No		Temporary competitive advantage	Differentiated strength and competence
Yes	**Yes**	**Yes**	**Yes**	**Sustainable competitive advantage**	**Differentiated and sustainable strength and competence**

Note. Adapted by the author based on Barney and Hesterly (2006) and the answers obtained by the research.

According to the model, the UA resource is a sustainable competitive advantage for the investigated restaurant, besides representing different strength and competence. However, it should be noted that the venture does not use the resource simplistically. The whole concept of the restaurant revolves around the activity and its elements. One of the differentials that the venture has is the use of indoor protected cultivation modules, developed by the team. Another major differential is the construction of the urban food supply network, which although still in the final testing period, strengthens the idea of knowing the origin of the food consumed, since its origin until it's applied cultivation techniques.

The UA is an element present in the business ideology and is related to the other resources and elements dominated by the enterprise. According to Van der Schans et al. (2016), classical management literature often recommends that an enterprise does not pursue different strategies at the same time, with the risk of losing focus, a situation commonly reported by the term stuck in the middle. However, like the investigated restaurant, the different strategies adopted point to a common destiny, and thus strengthen the enterprise's image, generating broad competitive advantage by the union of the developed resources.

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FINAL CONSIDERATIONS

UA is an emerging theme in the agribusiness field and is increasingly present in government and academic discussions. Due to the possibility of insertion in the most diverse urban contexts, it can provide commercial enterprises a conditioning image with the growing search for higher quality food.

Because it is an activity of easy entry and highly adaptable to urban environments, it can hardly lead to a competitive advantage to the enterprise, as it does not by itself establish entry barriers. However, as in the case of the investigated restaurant, combined with other resources and bet as a conceptual element linked to the enterprise's image, UA can constitute a high factor of differentiation. The development of new ways of inserting and harnessing the practice in different business modalities can give UA an increasingly broad meaning that goes beyond job and income generation and food security, as well as encompassing quality nutrition, feeding awareness and education, environmental respect and conservation, among others.

The results of this study are important because they show that, in addition to food security and job creation (Hoornweg & Munro-Faure, 2008; United Nations & Department of Economic and Social Affairs - Population Division, 2014), UA can be used as a competitive resource for diverse enterprise models, corroborating Specht, and Siebert (2014) and Schans et al. (2016). They also show that RBV – in particular the VRIO model, constitutes an appropriate theoretical basis for studying the field of hospitality and tourism, corroborating Ottenbacher, Harrington and Parsa (2009), Leonidou et al (2013) and Zhou et al (2015).

Because the investigated restaurant was completing the pilot phase of its urban farmer network, it was not possible to verify in-depth how this network is based and organized. Thus, for future investigations, it is suggested this new model of food supply to food enterprises and the relationship between suppliers and consumers, involving the three links of the chain: producers, restaurants, and customers.

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