

Chapter 9

Innovation and Collaboration in the DNA of a Cultural Industry: Craft Beer in Baja California



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Abstract This chapter describes the structure and dynamics of the craft beer sector in Ensenada, Baja California. It identifies elements of innovation and collaboration in the way this cultural and creative industry has evolved into its current form. This is achieved through a quantitative study that is descriptive in scope, and in this sense, the innovation value chain model was adopted as an analysis framework. One major finding is that the highest degree of innovation is recorded in production processes and brand management. Also of special note is the fact that collaborative networks between actors in this industry are established naturally and organically, and therefore they become part of the industry's DNA. The chapter provides first-hand insights into the field of cultural and creative industries, explaining key factors in its development process and identifying the challenges that this sector faces in becoming an entrepreneurship and innovation ecosystem in the CaliBaja region. Studying aspects of innovation and collaboration legitimizes craft beer as a cultural and creative industry, and also generates knowledge of a sector with economic potential in Baja California.

Keywords Craft beer · Innovation · Cultural industry · Creative economy · Collaboration networks

9.1 Craft Beer in Baja California: The Emergence of a Cultural Industry

The concepts of cultural and creative industries first came to the fore in specialized literature in the 1990s. One reason for this is their growing prominence in regional economies, which in turn responds to the disruptive potential held by this kind

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of industry. Moreover, this disruptive potential is associated with intense creative, innovative, and knowledge activity that plays a part in shaping the pillars of the so-called orange economy (Buitrago & Duque, 2013; Cunningham, 2002; Flew & Cunningham, 2010; Florida, 2000; Lazzaretti, Boix, & Capone, 2008; Throsby, 2001).

Authors like Borseková, Cole, Petříková, and Vanová (2015); Castells and Hall (1994), and Florida (2008) have maintained that when the emergence of cultural and creative industries is encouraged, the regions where this occurs become global poles of attraction, drawing in capital and talent and bringing an opportunity for economic development and an enhanced quality of life for society.

UNESCO (2010), for its part, states that cultural and creative industries stem from individual creativity, skill, and talent, and have the potential to create value by using intellectual property (p.18). Similarly, the same document asserts that these industries are distinguished by sectors in which goods and services cannot be reproduced on an industrial level, and as a result the scale of their operations is small or medium-sized. Thus, craft activity is another productive and sociocultural means of boosting the economy, and through which craftsmen combine technique, skill, and creativity to preserve an industry as part of their cultural heritage.

Some of the undertakings that illustrate the variety and scope of these creative industries involve advertising, architecture, art, design, fashion, film-making, publishing companies, artistic performances, and research and development (Howkins, 2001, pp. 88–117). These are joined by tourism, gastronomy, and high-value wine production, in addition to craft production, as is the case with the beer sector.

In the Baja California region of Mexico, three cultural industries have seen considerable growth over the last 15 years, particularly in the city of Ensenada (Deloitte, 2017; González, 2015): the *gastronomy sector*, which has positioned several of the city's restaurants among the best in the country, leading UNESCO (2015) to name Ensenada a Creative City; the *wine sector*, with Ensenada named the "Wine Capital of Mexico" by virtue of the fact that this region produces 90% of Mexican wine (García, 2016); and the *craft beer sector*, with Baja California recognized as one of the main regions for production and high quality in Mexico, which explains why each year many beer makers from Baja California earn the highest distinctions in Mexico, including best brewery in Mexico (Heras, 2016). These three major sectors define Baja California as a cultural and creative pole of major importance in Mexico.

In particular, the craft beer industry is one sector that has spawned particular interest due to the economic impact documented in other parts of the world. Particularly noteworthy in this respect is southern California, where the industry accounts for 7.3 billion dollars and 900 producers, creates almost 49,308 jobs, and pays 868 million dollars in taxes to the state government, in addition to 617 million dollars to the federal government (California Craft Brewers Association, 2017).

This success story has encouraged the emergence of other markets in multiple regions of the world with significant potential for growth, and Baja California, Mexico,

is one of the areas most strongly influenced by this phenomenon. This region boasts certain distinctive features within the framework of the socio-territorial system known as CaliBaja, which includes southern California and Baja California.

To understand the potential of this emerging cultural industry, it is important to consider that the “conventional” beer industry in Mexico currently comprises 55 beer-making companies that account for 1.2% of the total gross industrial production. This gross production was valued at just over 78.4 billion pesos in 2014. The companies’ assets amount to over 66.6 billion pesos and they create 11,834 jobs for Mexicans (INEGI, 2014). Furthermore, the industry’s 63 million consumers mean Mexico ranks sixth in the world for beer consumption, at approximately 62 l per person per year. However, the craft beer market accounts for just 0.5% of the total market in Mexico, meaning that this sector offers significant growth opportunities (Tarango, 2015). For example, as of 2017, records show 635 craft beer producers in the whole of Mexico, and the last decade has seen a sustained average growth rate of 30% (Beerectorio, 2017).

Thus, the boom in craft beer began in 2008, but really only made leaps and bounds from 2013 on the back of a resolution by the Federal Economic Competition Commission (COFECE) on non-exclusivity in beer distribution. This benefitted major beer companies immensely (Deloitte, 2017). This beer boom attracted considerable interest due to its rapid development. Nonetheless, as mentioned above, craft beer only accounts for 0.5% of annual beer production, a third of which is located in Baja California (Manzano, 2015).

In this sense, Baja California has over a hundred registered craft beer producers. However, in spite of this boom and like everywhere else in Mexico, there are several constraints that are preventing this industry from developing optimally. These include tax liability, high production costs, and a market that has been molded by major producers. Additionally, and above all, there is a lack of accurate information on the structure, dynamics, and behavior of the industry (Beerectorio, 2017; Bernáldez, 2013; Deloitte, 2017).

Meanwhile, *collaboration networks* and *innovation* are variables that are clearly present in the craft beer industry, and have the potential to compensate for the constraints faced by the sector and continue to boost its competitiveness. However, and despite their importance, Duarte, Bressan, and Sakellarios (2017) report that research into these variables is still at an early stage. This situation is even more dire in Mexico, where this sector remains unexplored.

In light of the foregoing, this study arises from a desire to study the craft beer industry as a markedly innovative sector that exhibits a high degree of collaboration based on the construction of social networks that make it possible to encourage creative processes and knowledge transfer, and which take shape as a vehicle for the reactivation of the regional economy. In other words, the objective of this study is to analyze the presence of innovation in this industry using the innovation value chain model proposed by Hansen and Birkinshaw (2007) as an analysis framework, and explore the collaboration dynamics that characterize this industry.

9.2 Innovation in Craft Beer

The growth potential for craft beer has been clearly observed in other markets such as in the United States, where the industry began to experience a dramatic expansion in the late 1980s. Small beer companies emerged across the whole country, particularly in the state of California, in response to growing demand by consumers with distinct tastes and an interest in high-quality, locally-developed products.

The craft beer industry in the United States continues to grow significantly today, both in production value and market share (California Craft Brewers Association, 2017; Nurin, 2017), and its competitiveness is based on a set of specific circumstances.

In this sense, Kleban and Nickerson (2012) acknowledge that the industry's success is mainly a response to the high value perceived by consumers, which stems from the quality of their experience drinking craft beer. In turn, this added value responds to differentiation-oriented strategies in creativity in brand management or the production process, which combines traditional processes with unique formulae using nontraditional ingredients, leading to a wide range of new styles that not only meet demand by very specific niche markets but also diversify the offerings of the traditional beer industry, enabling it to compete with other segments of the market such as the wine sector. This strategy allows craft beer to compensate for its competitive disadvantage compared with the economies of scale enjoyed by major breweries, which are able to price their products more freely.

In this manner, it can be inferred that a brewery's success is associated not only with prestige based on the quality of the product, but also the originality and creativity of production process and the design of the establishment, images, logos, and slogans that make up the brewery's brand. This is an aspect that creates added value and attracts consumers, but above all, one that has become the main driver of innovation in this industry.

In this sense, and throughout the twentieth and twenty-first centuries, various authors have contributed to developing a theory of innovation that highlights its importance as a trigger of economic and social development. Such is the case with Dosi (1988), Dosi and Nelson (1994), Etzkowitz and Leydesdorff (1995), Freeman (1998), Pérez (2001), Rogers (1995), and Schumpeter (1934), among others. Even authors such as Nieto (2008) claim that innovation is a vital human need for survival and progress.

Schumpeter (1934), for his part, defines innovation as a combination of mostly intangible forces that revolutionize the structure and socio-economic dynamics of an organization, community, or region. It destroys old paradigms and generates new elements through creative processes. This combination of forces can manifest itself in five ways: (a) the introduction of a new good or service, (b) the introduction of a new method of production or commercialization; (c) the opening of a new market, (d) a new source of supply of raw materials, or (e) the creation of a new organization or radical changes in its structure.

The Schumpeterian conceptualization of innovation underscores its disruptive-ness, whereas authors like Freeman (1998) and Dosi (1988) recognize and value its progressive nature, arguing that many innovations are the result of tacit knowledge derived from experience in the design, development, production, and commercialization of the company, reverse engineering, or informal relationships established with competitors, suppliers, contractors, and consumers. In that perspective, innovation is not strictly scientific or technological in nature. Even Dosi (2000) asserts that, up until the nineteenth century, innovations were introduced by creative craftsmen, which shows that innovation can be found in all kinds of environments.

Similarly, the Oslo Manual is based on the idea that innovation is also present in sectors with scant scientific and technological activity, as is the case with the service sector, where innovation occurs in continuous increments and stems from high levels of collaboration, a permanent bond between suppliers and consumers, and an efficient flow of tacit knowledge (OECD, 2006). Added to these factors are those mentioned by Dosi (1988), such as the supply of human capital, consumer culture, location, regulatory framework, and development policy. Indeed, the Oslo Manual defines innovation as:

The implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization, or external relations. (OECD, 2006, p. 46).

In this sense, it can be noted that the 2006 edition of the Oslo Manual adds two types of innovation: organizational innovation, which concerns the implementation of new methods of organization; and marketing innovation, which entails the implementation of new methods of marketing. These forms of innovation may include changes in the design, packaging, advertising, and distribution of products, in order to meet a diverse demand. In this context, knowledge management and product originality and differentiation are the cornerstones of innovation processes.

Hansen and Birkinshaw (2007) organize these elements within their innovation value chain model, which is a sequential process comprising three phases:

(a) *Idea generation*. This phase is based on knowledge production and transfer, which may occur within the company or come from external actors such as consumers, suppliers, competitors, universities, and other industries; (b) *Idea conversion*. This phase consists of selecting the ideas that show the greatest potential and facilitating the necessary conditions, including funding, so the idea can be transformed into a new product, service, or process; (c) *Idea diffusion*. At this stage of the innovation value chain, the concepts that were funded and successfully developed and transformed into a new product need to be accepted, both by internal and external customers.

In particular, this process by which innovations are adopted has been well studied by Rogers (1995), who categorizes users based on how quickly they respond to the emergence of a new technology.

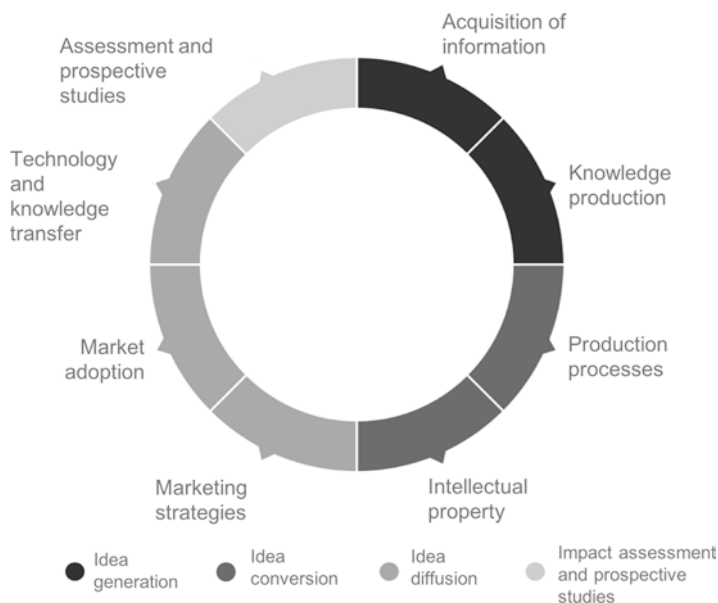


Fig. 9.1 Innovation value chain in craft beer. (Duarte et al., 2017; Hansen & Birkinshaw, 2007)

Likewise, these three phases include a series of actions that go from acquiring explicit knowledge (research) or tacit knowledge (experience) to commercialization and market adoption, via intellectual property protection processes and the production process itself (see Fig. 9.1).

As previously mentioned, few studies have been conducted on this industry. Some have focused on analyzing factors that influence loyalty toward brands of craft beer (Murray & Kline, 2015), and others on the competitiveness of the sector (Kleban & Nickerson, 2012; Zhang, Barbe, & Baird, 2015). Even historical analyses of craft beer have been published (Elzinga, Tremblay, & Tremblay, 2015). However, studies on innovation in this industry are scant.

As a result, research by Duarte et al. (2017) is of particular interest owing to its focus on innovation perception and practices in microbreweries. In this respect, their study reports that innovation is perceived within production processes, and specifically in the originality of the recipe (the combination of ingredients and methods), which in turn results in the development of a wide range of new styles and flavors, encouraging constant variation in consumers' preferences and a continuous transformation of the market. Schumpeter (1934) considers this behavior a determining factor in his concept of innovation.

Additionally, Duarte et al. (2017) stress that brewers' perpetual interest in and pursuit of novelty (discovery, ingenuity, creativity, and originality) is not only reflected in production processes but also in phases relating to brand management and commercialization, which has become a means for breweries to stand out and build long-term sustainability.

Furthermore, certain situations, such as the construction of social networks and closer relationships with other cultural industries like gastronomy, enology, and tourism, as well as a reduced number of decision-makers in craft breweries, who in turn facilitate trial and error processes, provide a significant boost to innovation in this sector.

9.3 The Collaborative Nature of Craft Beer

Kleban and Nickerson (2012) point to the companies' close relationships and familiarity with consumers and local suppliers as one distinctive factor that has been observed in the craft beer sector. In other words, the craft beer industry encourages the establishment of ties and partnerships with local and regional companies and economies in order to strengthen their competitiveness.

For example, it has been observed that brewers rely heavily on their ties with local stores, restaurants, and bars to launch their products, in addition to participating in regional events and festivals. This proximity to the community enables beer makers to take part in corporate social responsibility programs, thus strengthening their commitment to the communities that sustain them.

However, network construction does not only follow a vertical integration model between suppliers and distributors, but also—and sometimes even more so—between competitors.

One explanation for this behavior is provided by Stebbins (2007) and Murray (2009), who report that in the craft beer industry it is common to see homebrewers progress into craft brewing. Homebrewers make beer as a hobby and do not operate on any commercial premises, while craft brewers generally have spaces for beer production and distribution. The fact that brewers often start out as homebrewers allows them to gain the knowledge, experience, and technical skills required to expand their reach.

During this first stage of development, craft brewers often forge collaborative ties and establish networks among themselves at events, in courses or simply by engaging with others and sharing suggestions and knowledge (Murray, 2009; Murray & O'Neill, 2015; Olson, Murphy, & Ro, 2014). Specifically, Duarte, Alexander, and O'Brien (2018) study the benefits of and barriers to networking and collaboration between homebrewers. McGrath and O'Toole (2013), for their part, find that identifying craft brewers not just as individual units but as organizations distinct from larger breweries is an enabler for collaboration networks, and this is similar in Canada, New Zealand, the United Kingdom, Australia, and the United States. Rodgers and Taves (2017) report that brewers describe the social aspect of beer-making as an environment of friendship, a term that also indicates social dynamics such as collaboration, trust, and a sense of community.

So it is that these collaborative networks focus on direct or indirect links between actors. These links may potentially be of great help in enabling the growth of breweries, and are based on the exchange of information, contacts, and material,

which fosters a certain level of consistency between knowledge practices (Casson & Giusta, 2007; Duarte et al., 2018; Forret & Dougherty, 2004; Roberts & Bradley, 1991; Rodgers & Taves, 2017). McGrath and O'Toole (2013) believe collaborative relationships exist between consumers, competitors, suppliers, distributors, funding agencies and research institutes, among other actors.

Collaborative relationships in the craft beer sector are extremely important as they allow brewers to share valuable resources like supplies and specialized or strategic knowledge (Duarte et al., 2018; Plummer, Telfer, Hashimoto, & Summers, 2005). Indeed, literature highlights the importance of collaborative networks for entrepreneurs, particularly in this sector. Networks exist at a local or regional level (Duarte & Bressan, 2014), and enable entrepreneurs to discover and develop opportunities through a commitment to the socio-economic system they are bound to. These relationships come more naturally to businesses that work on a smaller scale (small and micro-businesses), as through collaboration these organizations are able to explore new territories, particularly when there is the opportunity to acquire new skills and abilities, which in turn results in greater efficiency and profit (de Jong & Freel, 2010). In this sense, networks are key in countering the vulnerability of a smaller business and overcoming resource limitations, which otherwise would not be possible (McGrath & O'Toole, 2013). The ability to participate in effective collaboration activities has become fundamental for successful entrepreneurs, as it enables them to overcome the contextual obstacles they face in a climate of knowledge exchange and problem solving (McGrath & O'Toole, 2013). Various studies have contributed to the understanding of the benefits of collaboration between small businesses (Polenske, 2004; Smith, Dickson, & Smith, 1991). Gray (1989) identifies three phases in collaboration processes: (a) definition of the problem and relevant stakeholders, (b) the orientation and establishment of basic rules, and (c) implementation and assurance of execution.

Rodgers and Taves (2017), for their part, assert that despite high levels of collaboration in this sector, craft brewers maintain their autonomy and individuality. Home brewers and micro-brewers appear to be driven by the recreational and leisurely nature of their activity, excitement and enjoyment rather than financial gain. A certain openness and collaboration is noted among those learning the trade, and their study finds that, in contrast to what they originally believed, craft brewers are prepared to share knowledge and feedback among themselves.

9.4 Methodology

This exploratory study is an initial approach to the craft beer industry in the Baja California region, and seeks to contribute to literature on innovation in the region's craft breweries and their ability to establish collaborative networks. In this sense, the study focuses on micro- and medium-sized craft breweries in Ensenada, Baja California, Mexico, in light of their distinctive features such as their ties to the

gastronomy and wine sectors, and the proliferation of small-scale craft beer producers.

The impetus behind the study is Mexico’s position in the global beer market as one of the largest producers and exporters of beer, and one of the heaviest consumers in Latin America. This market has seen a huge surge in craft beer in recent years. Supply was estimated in 2013 at 300 craft breweries at least, with Baja California producing at least a third of the country’s craft beer (Deloitte, 2017; Antúnez, cited in Bernáldez, 2013).

This chapter draws from a broader study that seeks to describe the conditions of competitiveness in the craft beer industry across the state of Baja California. However, this study is confined to describing the conditions of innovation and collaboration within the industry in the city of Ensenada, Mexico; the other aspects will be addressed in future work.

The study population is made up of 21 craft beer producers currently located in the city of Ensenada, Mexico, all of which have at least one tap room. Data was collected between February and March 2018 by way of a survey that was personally delivered to each of the 21 breweries and addressed to the owners. Over the course of this period a response was received from 19 of the 21, which is equivalent to a 90% response rate. It should be noted that the sample was made up of breweries that did not just have production facilities, but also at least one tap room.

The survey was designed with closed-ended questions, the aim of which was to characterize craft brewers and their operating practices, and the impact they had on competitiveness in the sector. Response analysis was performed using descriptive statistics, through frequency analysis. Figure 9.2 illustrates the general framework of the study; this work only addresses innovation and collaboration whereas Table 9.1 shows the design of the study instrument.

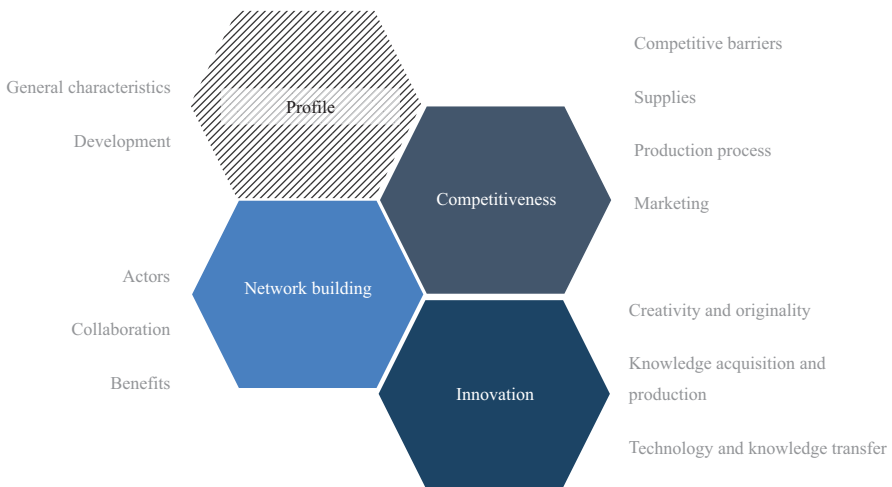


Fig. 9.2 General framework of the study. *Source:* Authors

Table 9.1 Research instrument

Innovation	Creativity and originality	Diversity of beer styles Differentiating aspects Most creative and original aspects of the business model Elements displaying the greatest differentiation
	Knowledge acquisition and production	Learning how to make craft beer Degree of specialization Business management
	Technology and knowledge transfer	Elements that could potentially be registered as intellectual property Shared knowledge
Network building	Actors	Main competitors Sources of funding Partners in company positioning
	Collaboration	Knowledge of beer-making Sharing knowledge Chambers or associations Collaboration or knowledge exchange (breweries)
	Benefits	Ties or relations with other sectors Benefits of collaboration

Source: Authors

9.5 Analysis and Discussion of Innovation

A description of this sector reveals a young industry in which, on average, companies have formally existed for around 3.5 years and have about 5 years' experience producing beer; furthermore, 81% of producers have only one tap room.

Regulatory and normative aspects stand out among the challenges faced by beer producers. By way of example, the impact of this factor becomes clear upon analyzing the significant growth experienced by this industry in 2013, when changes were brought into law to fight market monopolization (Deloitte 2017).

On the other hand, it is noticed that this industry carries out extensive and varying forms of innovation at different stages of Hansen and Birkinshaw's (2007) innovation value chain (Fig. 9.1). However, added value, creativity, originality, and differentiation are all concentrated in two of its links: idea conversion and idea diffusion.

With regard to acquiring knowledge to provide added value, 38% of craft producers report that they learned to produce beer from other brewers, both from Baja California and southern California, whereas 25% stated that they learned through courses and workshops and mentioned that these had also been organized by actors in the region: San Diego State University and the Ensenada Beer Fest forum (see Fig. 9.3).

This means that 60% of those surveyed agree with Hansen and Birkinshaw (2007) that high-value knowledge acquisition comes mainly from actors that are

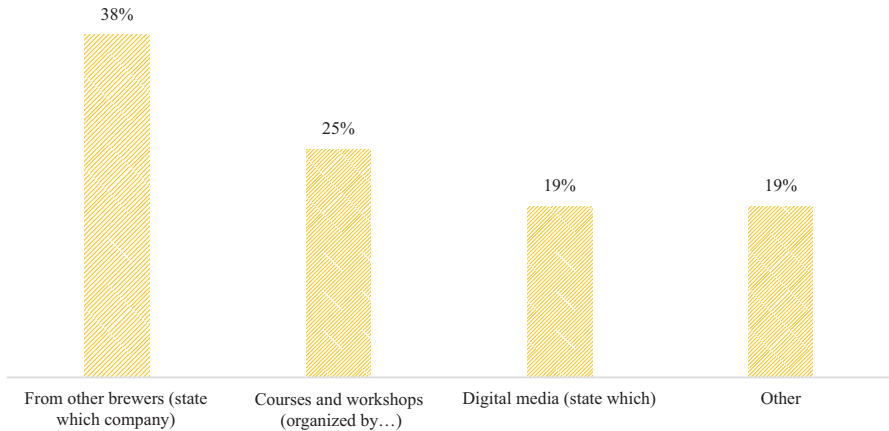
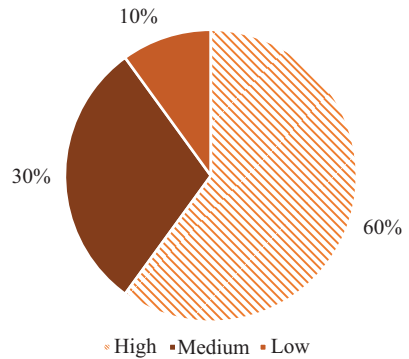


Fig. 9.3 How respondents learned to make craft beer. *Source:* Authors

Fig. 9.4 Degree of knowledge specialization. *Source:* Authors



external to the company. Often it even comes from engaging with competitors, as stated by Freeman (1998) and Dosi (1988). Continuing this line of thought, 89% of brewers acknowledge having received, at some time, significant knowledge from other brewers.

As for the degree of specialization necessary in the industry, in terms of knowledge, 60% of producers consider they required a high degree of specialization to develop their company (see Fig. 9.4).

Furthermore, they report that the technological infrastructure, production process and formalization and regulatory compliance processes were the most difficult aspects to develop, which suggests a better understanding is required at these stages (see Fig. 9.5).

Creativity, originality, and differentiation—determining factors in innovation—are prominent in the production phase, which corresponds to the second link in the model proposed by Hansen and Birkinshaw (2007), particularly regarding recipes, in which—as reported by Duarte et al. (2017) and Kleban and Nickerson (2012)—a combination of nontraditional ingredients and traditional methods give rise to a

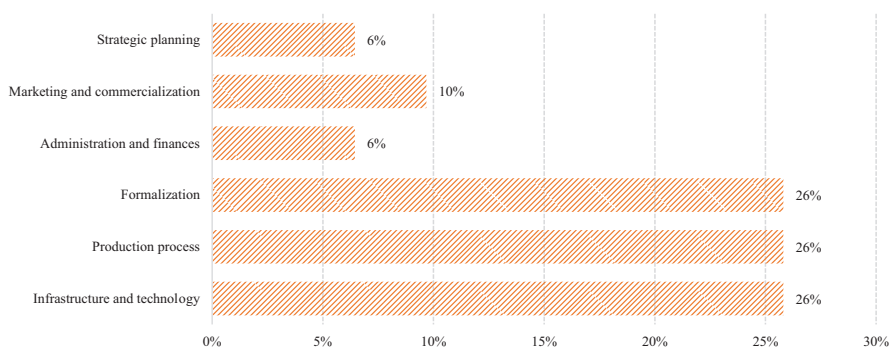


Fig. 9.5 Business management. Difficulty in developing the different stages of management. *Source:* Authors



Fig. 9.6 Diversity of beer styles. *Source:* Authors

wide range of flavors and styles (see Fig. 9.6), and thereby what is known by the OECD (2006) as a “product innovation,” which in turn creates new markets.

On the other hand, and regarding so-called process innovations (OECD, 2006), this industry also sees innovative activity, but of a gradual nature, since this sector has not simply adopted existing technology in the domestic and international markets as part of production processes, but one segment has opted to develop and improve production systems and technology. In this sense, 34% of those surveyed reported having developed their own production system, whereas the other 34% mentioned having innovated, in some way, the technology they acquired (see Charts 22 and 37). As reported by Freeman (1998) and Dosi (1988), this kind of innovation is usually the result of the company’s accumulated experience in different business processes, including production operations like in this case. This in turn suggests high levels of specialization and knowledge in craft beer producers.

With regard to differentiating aspects, although it is true that 50% of those surveyed considered that it was the flavor and diversity of the beer styles they produced

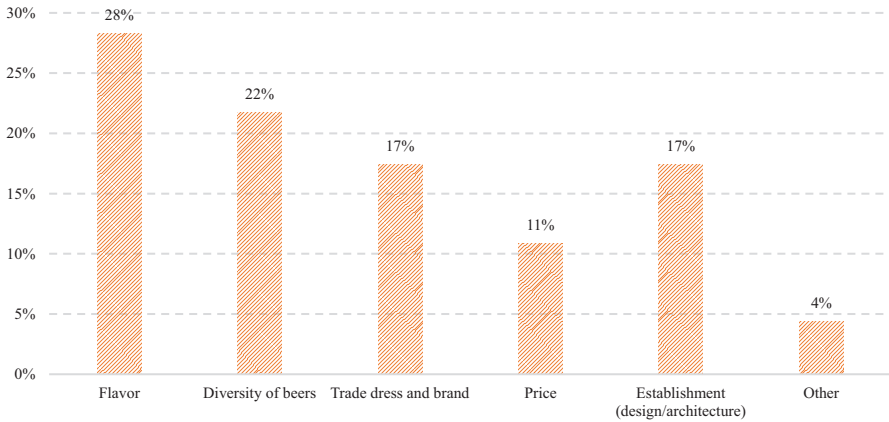


Fig. 9.7 Elements enabling differentiation. *Source:* Authors

that set them apart from their competitors—both of which are associated with product innovation—it is also true that 34% attribute their distinctiveness to aspects related to their business concept, such as their trade dress and the architecture of their establishment, which are features that come under marketing innovation. As reported by the OECD (2006), this is associated with new marketing methods that correspond to the idea conversion link in Hansen and Birkinshaw’s (2007) model (see Fig. 9.7). Similarly, 61% of brewers consider that most creativity occurs in the product development process. Nevertheless, the remaining 39% of producers believe the creative process is strongest in marketing and commercialization aspects (see Fig. 9.8).

All of these findings match studies by Kleban and Nickerson (2012) and Duarte et al. (2017), who assert that innovation in the craft beer industry is not only present in the production phase, but also in brand commercialization and management, which are aspects that may not only translate into a dominant position in the market, but can at times also be vital for a company’s survival.

As far as originality is concerned, 42% report that their product is most difficult to mimic, compared to 35% who consider the trade dress, brand, and architecture of the establishment the most difficult aspects to mimic. Again, these innovation variables are concentrated in the idea conversion and idea diffusion phases (see Fig. 9.9).

Based on the fact that these results show that innovation is greatest, first and foremost, in production processes, and secondly in marketing processes, it is to be expected that products most likely to be registered as intellectual property would reflect these stages and this same order. However, 77% of those surveyed consider that the brand and trade dress have the greatest potential to be registered as some form of intellectual property, followed by technology and machinery, and only 9% mention the development/production process (see Fig. 9.10). In this sense, intellectual property is an important variable in innovation, as it adds and protects the value of processes and products and directly impacts technology and knowledge transfer activities.

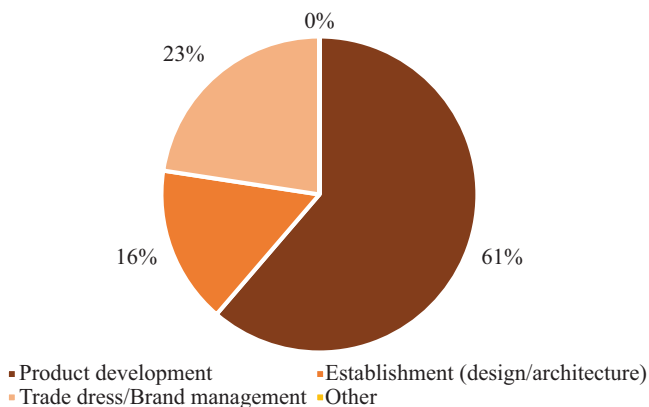


Fig. 9.8 Elements of the business model that reflect the most creativity and originality. *Source:* Authors



Fig. 9.9 Most differentiating aspects. *Source:* Authors

Finally, regarding technology and knowledge transfer, a collaborative industry is perceived in which 84% of those surveyed report having shared significant knowledge with other brewers, and as previously mentioned, 89% acknowledge having received knowledge from other producers. Without a doubt, this situation encourages innovation processes and its importance merits a separate study (see Fig. 9.11).

9.6 Analysis and Discussion of Collaboration

Regarding this sector’s capacity to create collaborative networks, 61% of producers surveyed reported that their business started out as a hobby, which is consistent with findings by Murray (2009) and Stebbins (2007). This is a factor likely to facilitate collaboration among producers, since, as reported by Rodgers and Taves (2017), they are motivated by leisure, excitement, and enjoyment, rather than economic

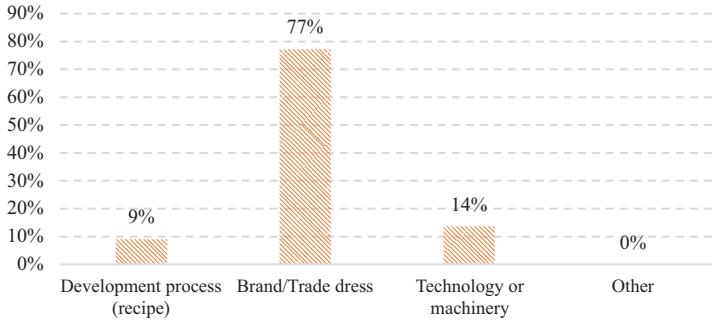
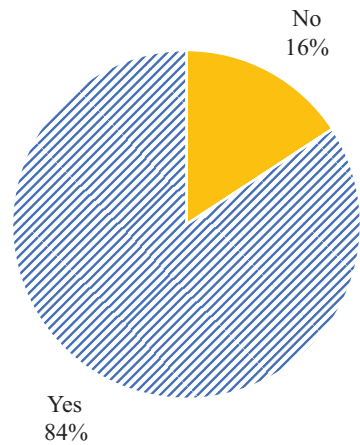


Fig. 9.10 Elements that could potentially be registered as intellectual property. *Source:* Authors

Fig. 9.11 Significant knowledge shared. *Source:* Authors



interests, which often means that during the initial stages of training and development in beer-making, collaborative bonds are forged with other producers, with whom they share knowledge (Murray, 2009; Murray & O’Neill, 2015; Olson et al., 2014). All of this produces an environment of familiarity and camaraderie, which significantly reduces aggressive competitive practices.

Another considerable challenge faced by brewers is the economic aspect, and in particular how to fund their companies, with 75% of producers acknowledging that they financed their venture with their own resources and just 25% reporting having used government or bank financing or a private capital investment (see Fig. 9.12).

Most noteworthy in Fig. 9.12 is the fact that only 12% have received support from the banking system or government. This is a clear indicator of the low level of engagement between these actors and beer producers. This is in contrast to the stance taken by McGrath and O’Toole (2013), who claim that collaborative relationships exist between actors of all kinds, including funding agencies.

Figure 9.13, on the other hand, shows that 43% of producers do not see other craft brewers as competitors, despite the fact that naturally this should be the case.

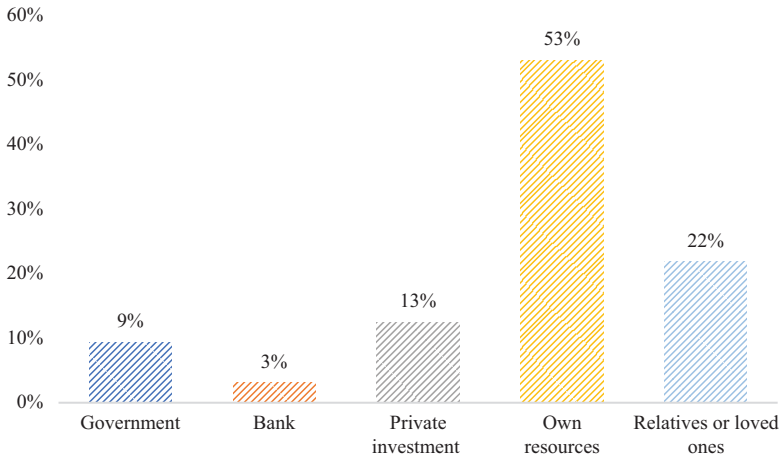


Fig. 9.12 Main sources of financing for companies. *Source:* Authors

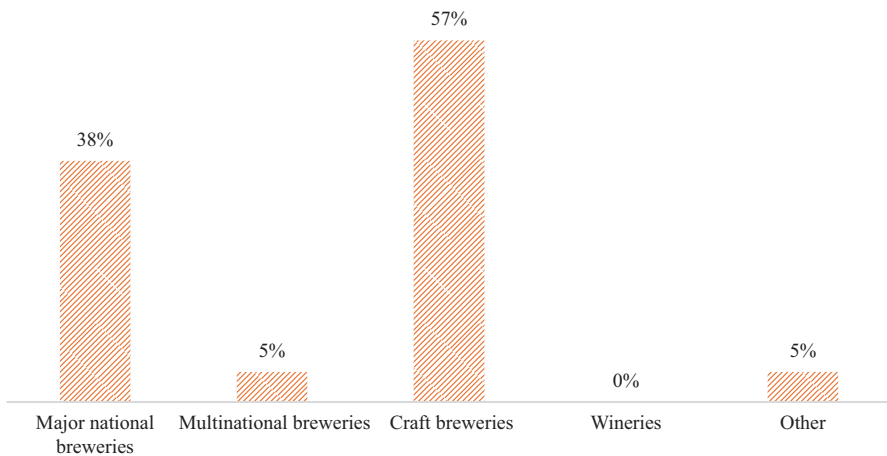


Fig. 9.13 Main competitors. *Source:* Authors

As far as knowledge transfer is concerned, Roberts and Bradley (1991), Forret and Dougherty (2004), Casson and Giusta (2007), Rodgers and Taves (2017), and Duarte et al. (2018) discuss engagement between actors in collaborative networks and focus, among other things, on information exchange, which standardizes—to a certain degree—knowledge practices. In this regard, 89% of those surveyed reported having received information, advice, or significant knowledge for their own development from other producers, in particular certain breweries from southern California. This strengthens the hypothesis that the proximity to southern California has had a positive impact on the emergence of this industry in Baja California, and has played a key role in knowledge exchange.

Table 9.2 How respondents learned to make beer

How respondents learned to make craft beer	Percentage
From other brewers (state which company)	57
Courses and workshops (organized by...)	38
Digital media (state which)	29
Other	29

Source: Authors

Despite this considerable knowledge transfer between brewers, Table 9.2 highlights the fact that, when it came to acknowledging how respondents had learned the trade, only 38% attributed it entirely to their beer-making colleagues. However, courses, workshops, and speeches, which are generally organized by brewers’ associations, are important for 25%, which could be added to the previous 38%. In this respect, some courses offered by universities in San Diego, California, are mentioned, which is in line with McGrath and O’Toole (2013), who include research institutions among the actors with which networks are built.

As for knowledge exchange, in top place are aspects relating to the production process and an analysis of theoretical foundations, as reported by Plummer et al. (2005) and Duarte et al. (2018), who assert that collaborative relationships enable them to share valuable resources such as specialized knowledge or strategic knowledge (see Fig. 9.14).

As far as associations or chambers of commerce are concerned, it is observed that 67% are members; nonetheless, it must be considered that this sector is still in the early stages of development, so many companies have only recently been created and have still not enrolled in any of these organizations, which may explain why the remaining 33% have not yet joined any of these entities. In this regard, McGrath and O’Toole (2013) identify the fact that brewers tend to see themselves as a community rather than individual units as a key factor. This empowers them to meet the challenges of their environment (see Fig. 9.15).

As for which actors brewers consider their best allies, brewers themselves stand out at 71%, followed by other industrial sectors including suppliers and distributors, and in third place respondents also mention some universities from southern California offering certification and specialization programs in the field. In this sense, McGrath and O’Toole (2013) point out that collaborative relationships exist between consumers, competitors, suppliers, distributors, funding agencies, and research institutions. However, scant engagement by brewers with governmental actors and funding agencies—which should theoretically constitute the mechanisms that would generate favorable conditions to enable an industry to thrive—is also notable (see Fig. 9.16).

Figure 9.17 illustrates the diversity of breweries mentioned as providers of information and knowledge. This shows this industry’s openness toward collaboration in

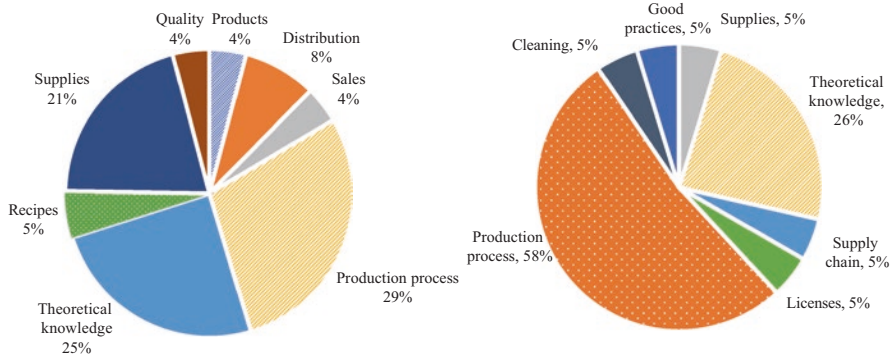


Fig. 9.14 Aspects on which knowledge has been shared. *Source:* Authors

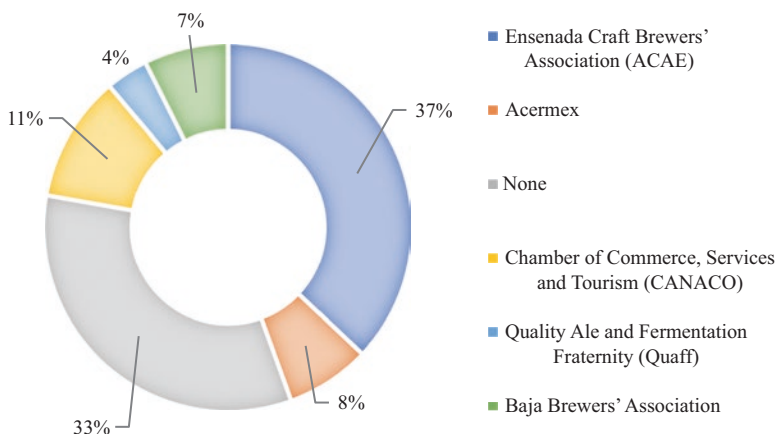


Fig. 9.15 Chambers or associations to which craft beer producers belong. *Source:* Authors

the processes of teaching and learning the trade. This is touched upon by Rodgers and Taves (2017).

Figures 9.18 and 9.19 give the main reasons for which brewers decide to establish ties and the benefits they gain from these relationships. There is an association between the expectations of collaboration and results obtained, as these have become aligned. Indeed, the two most common expectations for engagement are product improvement and the opportunity to help other brewers, which are the exact same benefits brewers reported to have gained. This is consistent with findings by Duarte et al. (2018), who remark that benefits gained include strategies to improve products and satisfaction derived from an environment of camaraderie.

Finally, regarding tax regulation, Kleban and Nickerson (2012) report that this industry is highly regulated at federal, local, and state levels. These three levels regulate beer production and distribution, but also licenses, labeling, marketing and

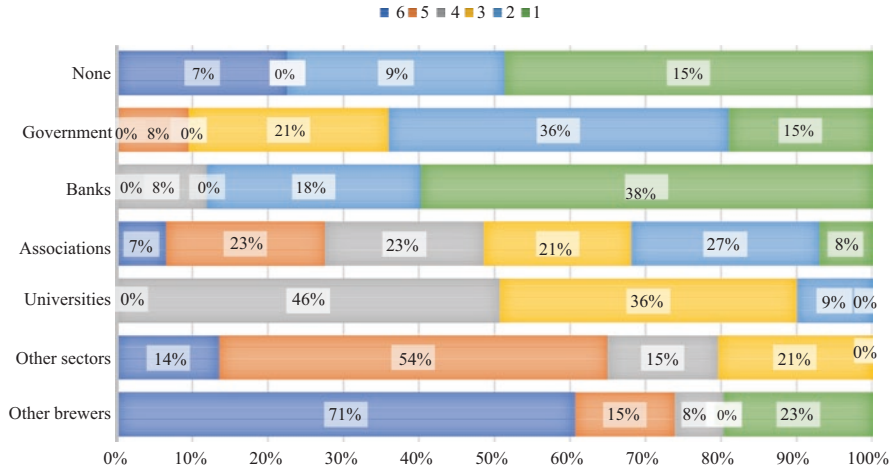


Fig. 9.16 Actors that have become best allies for the company’s development and positioning. Source: Authors



Fig. 9.17 Breweries between which there is collaboration or knowledge exchange. Source: Authors

commercialization practices, and distribution agreements, among other aspects. Furthermore, the entities responsible for collecting these taxes, licensing fees, and other similar contributions vary across the three levels.

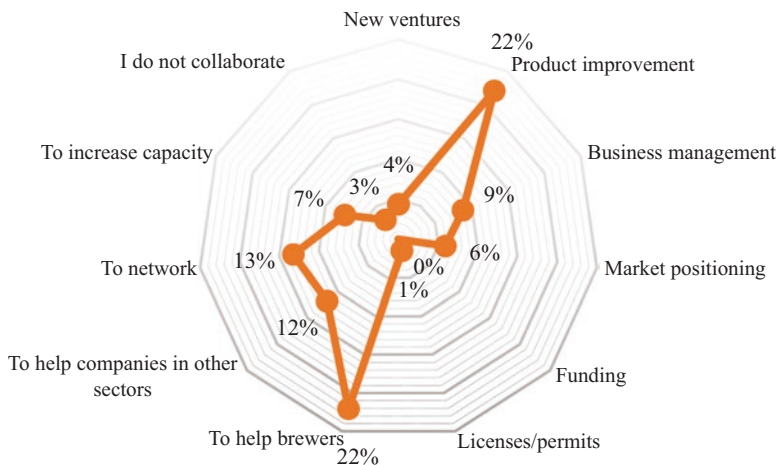


Fig. 9.18 Reasons for which ties or relationships are established with other sectors. *Source:* Authors

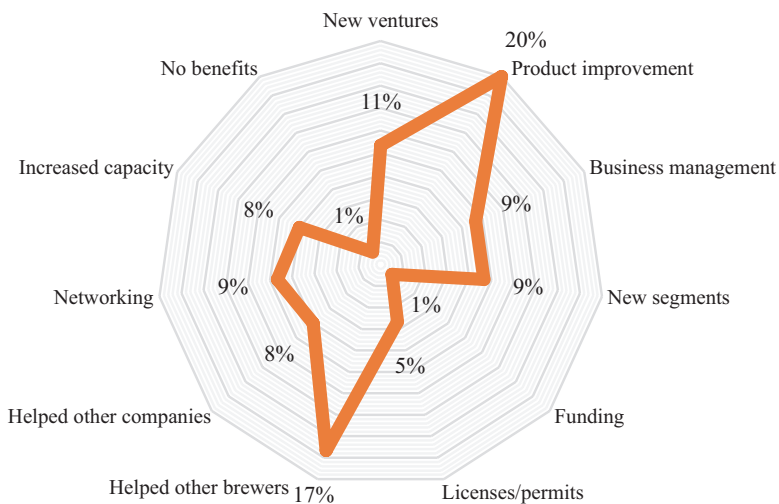


Fig. 9.19 Benefits gained through collaboration with other actors. *Source:* Authors

9.7 Conclusions

The purpose of this study was firstly to recognize the impact that an emerging cultural industry like the craft beer industry can have on a region’s economic development, so long as appropriate conditions for competitiveness are provided to help it thrive. As part of this analysis, the boom in beer production in southern California,

United States, was taken as a reference (California Craft Brewers Association, 2017). Thus, and in recognition of the growing importance of innovation in triggering competitiveness in companies, industries, and sectors, this variable was studied in the craft beer sector. Our study drew from the perspective of the Oslo Manual (OECD, 2006) and the innovation value chain model (Hansen & Birkinshaw, 2007) and is supported by the neo-Schumpeterian school represented by Freeman (1998) and Dosi (1988), as well as various studies linked to the craft beer sector (Duarte et al., 2017; Kleban & Nickerson, 2012). Lastly, the study sought to describe this industry based on an analysis of its structure, revealing a collaborative dynamic between actors that make up this industry.

The main findings show that the craft beer industry in Baja California is at a stage of development and its emergence has been driven both by the success experienced in southern California and producers' own interests, which at the outset were not necessarily purely commercial in nature, but due to a genuine desire to develop their own craft skills.

With respect to Hansen and Birkinshaw's (2007) innovation value chain, it has been shown that in this industry, innovation is greatest in the idea conversion and diffusion links, as producers view attributes of differentiation, creativity, and originality as being present in their production processes, in which they combine new ingredients with traditional methods, giving rise to a wide range of styles and thereby new markets. And, on the other hand, these attributes are also found in trade dress and brand management, where creativity and originality are observed in aspects that range from the product name to the architecture of the establishment.

This means that, based on the classification by the OECD (2006), this industry features innovations in three of the four types of innovation, namely product, process, and market innovation, and there is no evidence of organizational innovation.

The industry is based on differentiation, which translates into (1) product innovations, with a wide range of styles and flavors derived from unique recipes, and which have given rise to a new market niche in which consumers place value on the whole experience surrounding beer consumption; (2) process innovations, in which producers have achieved a high degree of specialization that has enabled them to develop their own production technology or enhance existing technology; and (3) marketing, in which differentiation has become a competitive strategy.

Nonetheless, as in any emerging industry, there are also significant challenges. In this sector, normative and regulatory aspects in particular have been identified as a considerable obstacle for the development of the industry.

Similarly, regarding technology and knowledge transfer, a cooperative industry is noted in which many producers do not only claim to have received significant knowledge from other producers, but also to have developed it themselves. This characteristic is emerging as a variable that merits more in-depth research.

Furthermore, it is acknowledged that building collaborative networks is a factor that entrepreneurs must consider to achieve success, as it empowers them to meet the challenges posed by their environment. In the case of craft beer, this factor is part of their DNA, so is perceived as natural in their day-to-day activities. This can be explained by the fact that their interests go beyond business, and is associated

with the sense of belonging to a community. This dynamic has enabled micro and small breweries to leverage these relationships to compete in a market dominated by major national and transnational companies, as by working together it becomes easier to exchange valuable resources, such as supplies and other aspects of the value chain infrastructure, but above all, specialized and strategic knowledge (Duarte et al., 2018; Plummer et al., 2005).

Based on the above, this chapter also salvages the idea of the craft beer sector as a collaborative industry, the potential impact of which on the economic development of the Baja California region is imminent.

Similarly, this study describes a recently created industry with marked collaborative efforts between participants, based on friendship rather than business, which is in line with Rodgers and Taves (2017), who describe how brewers are driven by satisfaction and enjoyment rather than economic gain. This climate in particular produces a friendly context and reduces rivalry between competitors. Similarly, a high degree of collaboration was identified between brewers themselves, and it has been ascertained that this does not occur to the same extent with other sectors, especially the banking sector and the government, which has been identified as an obstacle rather than an ally.

On the other hand, it can be seen that knowledge exchange is an aspect that should be studied further. It was found that a high percentage of those surveyed had exchanged significant knowledge for development, as shown by literature (Casson & Giusta, 2007; Duarte et al., 2018; Forret & Dougherty, 2004; Roberts & Bradley, 1991; Rodgers & Taves, 2017).

As far as the implications of this study are concerned, it is important to mention that this is an initial approach to the industry in the region, so it was decided to begin by studying the city of Ensenada before expanding the study to the entire Baja California region.

Finally, it follows that craft beer is an industry that faces great challenges, such as defending itself against control by major traditional breweries, with an economic power that entails significant disadvantages for craft brewers, or extreme local and national regulation. However, strategies focused on differentiation and their integration into the local socio-economic fabric offer advantages that are enabling the industry to become more competitive. These strategies are closely linked to the two variables analyzed in this chapter: *innovation* and *collaboration*, which due to their importance merit a more in-depth study in future research.

The lessons learned and findings in this study of the development of the craft beer industry in Ensenada lay the foundations for a study of the sector in the cities of Tijuana and Mexicali. However, it should be mentioned that the analysis strategy used, which incorporates key aspects of the innovation chain, is unprecedented in cultural industries. Indeed, there are other aspects that are relevant, such as those relating to intellectual property and technology transfer, which will be considered topics for future work, and which we believe will offer economic certainty and strength to a booming sector with great potential for economic development in Baja California.

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