



COMPANY COMPETITIVENESS OPERATING IN THE MILK INDUSTRY

Timeridjine Sara*, Chitti Mohand

Department of Business and Management,
Bejaia University,
Bejaia, Algeria

Abstract:

In the face of globalization and its effects, the company's competitiveness remains an essential element for their growth and survival. This contribution aims to shed light on competitive advantage as a source of company's competitiveness, by analyzing the competitive intensity in the milk industry based on Porter's competitive forces supported by a multiple case study of Bejaia companies operating in the Algerian milk industry.

For this paper, we studied large private industries with more than 20 years of experience in their fields of activity and with a common cost strategy. The results of study showed that the competitive intensity in this industry is important and that the competitive advantage is governed by a set of cost and non-cost factors that allow the studied cases to strengthen their positions by relying on their competitive advantages.

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INTRODUCTION

Previously, enterprises were content to compete only with local competitors, nowadays, they have to compete with local competitors and competitors from elsewhere. Hence the race to strengthen the competitiveness by protecting its competitive advantage. As the latter is the ultimate goal of any strategy, every enterprise seeks above all to maintain its performance level above that of its competitors. The strength gained from this advantage will enable it to increase its market share and become more competitive.

Agri-food industry (AFI) is experiencing a real boom in the Algerian economy. According to Bessaoud, Pellissier, Rolland and Khechimi (2019), this sector has significant growth being the second exporting sector after the hydrocarbons with an estimated annual growth rate of 6%. In 2021, this industry had a value added of 8.1% in the fourth quarter of the same year, compared with a value of 1.7% in 2020 during the same period (ONS, 2022).

*E-mail: tim.sara@hotmail.fr





Moreover, the growth of consumption, the weakness of agricultural yields and agri-food production have failed to meet the country's food needs. This led the government to include the AFI as a priority sector to develop, by focusing on priority products which are necessarily those of broad consumption as milk, hence the incentive to invest in this industry. For this industry, Algeria is trying to achieve its goal of self-sufficiency in order to cover the import gaps of the raw material which amounts to more than one million euros per year and to satisfy the consumption. Algeria imports 40% of its milk consumption and is the world's second largest importer after China (Bessaoud, Pellissier, Rolland, & Khechimi, 2019).

Indeed, milk consumption is estimated at 157 l/year/capita, while the global average is 90 l/year/capita a difference of 55 l according to The ONIL director (National interprofessional Milk Office) in 2018. According to data from the ONS and the FAO (Food and Agriculture Organization) Milk consumption increased sharply from 24l/year in 1967 to 61l in 1980, then 89l in 2011 to 134l in 2015.

The enterprises population operating in this industry is 15 companies of the public group Giplait and more than 165 private companies whose processing capacity is variable of which 80% are concentrated in the north (Mamine, Fares, Duteurtre, & Madani, 2021). The most important ones are: Giplait group, Soummam, Hodna, Ramdy, Candia, Danone. The wilaya of Bejaia hosts 04 of these large industries.

This paper aims to study competitive advantage as a source of firm competitiveness by analyzing the intensity of competition in the dairy industry, highlighting the factors that influence the companies. This number of companies leaves room for an intense competition between them to acquire new market shares and strengthen their competitive advantage, this begs to the following question: what is the competitive intensity of this industry and what are the elements that the enterprises rely on to gain a competitive advantage?

In order to answer this question, we will present first a reviewing of the literature review of the business competitiveness and the competitive advantage through the sources of its acquisition that would allow the company to strengthen its position. Then, we will report the different results obtained from a competitive analysis of the milk industry through Porter's competitive forces, followed by the results of the direct interview conducted with managers of the milk industries in the wilaya of Bejaia in order to identify the competitiveness factors of these companies.

COMPANY COMPETITIVENESS AND COMPETITIVE ADVANTAGE

Management literature in competitiveness have tried to define this concept, but the fact remains that, to now a day the debates are innumerable and it is very difficult to discern its contours. Business competitiveness is a multidimensional construct that is at the heart of strategic management (Lafuente, Leiva, Moreno-Gomez, & Szerb, 2019), due to the multiplicity of definitions on business competitiveness, we retain for this work the one proposed by Chikan, Czako, Kiss-Dobronyi and Losonci (2022) which states that firm competitiveness is the capability of a firm to sustainably fulfil its dual purpose: meeting customer demand at profit. This capability is realized through offering on the market goods and services which customers value higher than those offered by competitors. This statement focuses on the competitive advantage' construction with the objective of strengthening the position and competitiveness of an enterprise.



The competitive advantage concept has increased great attention since it was presented by Porter (1985). Regarding the identification of this concept, it is not obvious since the concept does not have a unanimous definition, and several have tried to present a definition of the latter (Seni Dan, 2013); (Bishwajit, Som Sekhar, & Bala, 2022). Therefore, we will take up those takes into consideration a multidimensional approach (Falcicola, Jansen, & Rollo, 2020), namely Porter's on industry analysis and Barney's on resource analysis.

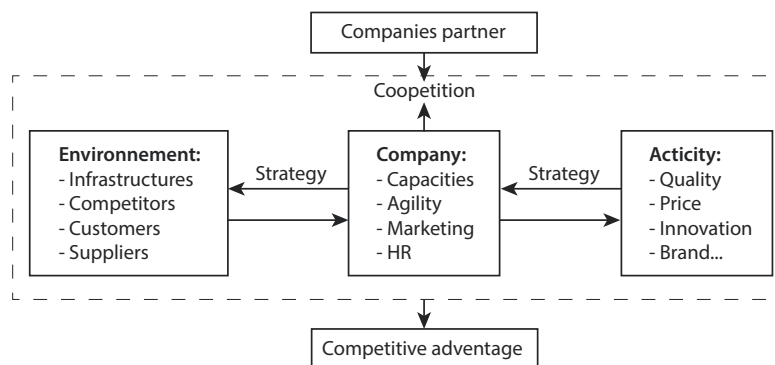
In management, the search for competitive advantage has relied heavily on Porter's work on the analysis of competitive forces, value chain and competitive strategies. But due to the neglect of internal factors, the RBV scholars argued that an enterprise position is based on specific resources analyzed through the VRIO model. This global analysis allows to have a more comprehensive approach, so that the key to success of any enterprise lies in the alignment of these two sides (Chikan, Czako, Kiss-Dobronyi, & Losonci, 2022).

The concept of competitive advantage has been emphasized by Porter in several of his works and is presented as the value that an enterprise can create for its customers in excess of the costs incurred by the enterprise in creating it (Porter, 1985). For Barney (1991) it is any enterprise that implements a resource-based value creation strategy, but that is not replicated by any other current or potential competitor and that strategy cannot be duplicated. Both views consider competitive advantage as an asset or superiority that an enterprise has over its rivals. In this work, it is not a question of choosing one of the two previous approaches, but of taking up both to analyses the sources of competitive advantage acquisition which will guarantee a better position so that the enterprise can offer its product to customers.

To further understand the enterprises competitiveness, several works have been identified as (BenMlouka, 2007); (Madhok & Marques, 2014); (Hermundsdottir & Aspelund, 2021); (Chikan, Czako, Kiss-Dobronyi, & Losonci, 2022). We have taken up Ben Mlouka's (2007) causal model which considers enterprises competitiveness as a set of factors that are directly linked to the enterprise, the product and the environment. The proposed conceptual model is presented in figure1. it shows that competitive advantage is the lever for enterprise competitiveness.

Figure 1 shows that the acquisition of a competitive advantage is not simply tied to external factors of the environment, but also to internal factors related to resources, through the organizational capabilities and the strategies that can lead to different relations that the enterprise may have with existing competitors.

Figure 1. Competitive advantage as a lever for enterprises competitiveness



Source: Designed by the authors



Advantage through strategy

A competitive advantage is not necessarily sustainable, it has a life cycle, it is therefore perishable or ends up being known by the competitors. The use of strategies is essential to find a new advantage or to reinforce the one already acquired. Yini and Lei Yu (2014) explains that a strategy is a source of performance, it allows to act by taking into account the external industry and competitive environment and internal resources to create a competitive advantage.

Competition is a sequence of actions and reactions of enterprises that respond to each other. These actions/reactions are analyzed over a period of time to understand how a competitive advantage is developed, defended or lost. The enterprise can then react in different ways: counter-attack, suffer and/or do nothing. These reactions are in fact strategies that any company can put in place to respond to attacks from its competitors. These strategies refer to the relationships that competitors have with each other, which Koenig (1996) presents as the triptych: confrontation-avoidance-cooperation.

Confrontation is to react with aggressive strategies while minimizing cooperation. An enterprise that feels attacked can react to destabilize the competitor using the most recurrent strategy the "price war", where ultimately the only winner is the consumer. For the avoidance strategy, the enterprise will flee from its competitors by seeking a positioning that gives it a competitive advantage. Finally, cooperation concerns the collaboration between enterprises around a common project and a way to overcome the lack of resources (Chierici & Tortora, 2021), in addition, this strategy allows economies of scale and innovation.

Following the cooperation strategy, another type of relationship (strategy) has emerged where competing enterprises cooperate according to the principle of "coopetition." This form of organization is necessary for the urgency of innovation and economic performance (Le Roy, Robert, & Lasch, 2013). Mariani and Belitski (2020) states that coopetition is conducive to acquiring new skills, knowledge, and capabilities from the competitor/partner, which allows them to acquire complementary resources, and it is also a means by which they can improve their performance in innovation. It also allows firms to gain more advantages than others by increasing product range and enabling partners to launch innovative products and services to a larger customer base than if acting alone (Bouncken, Fredrich, Ritala, & Kraus, 2018).

Advantage through organizational capacities

Building on Barney's (1991) work (RBV), an enterprise relies on its capacities. These aims to explain how organizations can gain competitive advantage in dynamic markets and environments supported by strong competition (Lafuente, Leiva, Moreno-Gomez, & Szerb, 2019). Teece (2014) consider organizational capabilities as the ability and/or capacity to deploy, integrate, build and reconfigure its resources to maintain leadership, create value for the company. Such as a capability is assessed as dynamic when it improves organizations' ability to make decisions, solve problems, identify opportunities and threats that arise, and modify existing resources and processes (Cezarino, Alves, Caldana, & Liboni, 2019).

Capacities are a source of innovation and creativity (Nieves, Quintana, & Osorio, 2016), but insufficient in itself to result in competitive advantage. Indeed, managing resources, organizing them and developing them through leadership, process and a good strategy is key to build a competitive advantage (Teece, 2014).



Organizational Agility (OA) is a new paradigm for engineering competitive enterprises (Nafei, 2016). For Walter (2021) OA is a learned, permanently-available dynamic capability that can be performed to a necessary degree in a quick and efficient fashion, and whenever needed in order to increase business performance in a volatile market environment. Otherwise, OA expresses a company's set of capabilities for thriving and prospering in an unpredictable and rapidly changing environment. In addition, enhancing agility speeds up the innovation of products, services, and business models, fostering firm performance and growth (Brand, Tiberius, Bican, & Brem, 2021).

Moreover, the existence of any company is based on an essential capital: human resources (HR). Investing in them is an important asset to ensure competitiveness and sustainability (Talukder & Irfanuzzaman, 2013). It is through men and women, their commitment, knowledge and their skills that we can gain a competitive advantage and create value (Gerhart & Feng, 2021). Knowledge has the greatest potential to serve as source of sustainable advantage generating economic rents that enhance enterprise position on their competitors (Caiazza, Richardson, & Audretsch, 2015). Mobilizing all the knowledge and skills of the enterprise's asset, could reach a unique organizational capital that competitors could not have.

Thus, organizational capacities are asserted as being essential sources of competitive advantage or used to construct a long term one when the resources can be durable, inimitable and convenient. The fact that these resources are heterogeneous and immobile makes them inimitable (or difficult to imitate), which offers the company a considerable competitive advantage (Barney, 1991).

According to Monteiro, Soares and Orlando (2019) work, companies' success depends not only on their existing resources, but also on the ability to adapt themselves to the industry contingencies and the markets in which they operate developing the enterprise's resource portfolio to gain competitive advantage and expand its strategic opportunities. However, the enterprise strategic intent helps it to combine its resources and capabilities more effectively to develop organizational competencies. Thus, companies impose their resources as key factors of their success.

DATA AND METHOD

In order to answer the research question, we used data triangulation. This principle allows a combination of data collection methods to ensure complementarity and corroboration (Sawadego, 2021). So, for this study we use both secondary and primary data in our analysis.

The primary data comes from a multiple case study using direct interviews with the companies operating in the milk industry. These companies are the three that we have identified in Bejaia city and are Soummam, Ramdy and Candia. We chose the large private industries of Bejaia that active in the milk industry, employing more than 250 employees, with significant market shares and notoriety in the food industry. These three companies are national and located in Bejaia with a significant experience effect, with over 20 years of experience, a common cost strategy and are leaders in their fields, in addition, they are in markets where they face national and international competition. We have therefore excluded SMEs and public enterprises since they are in a non-competitive local market and have differentiated strategies.

For the interviews, we solicited managers at different levels, however the Covid crisis constrained us to have access to a limited number of respondents who are the marketing directors for the first two companies supported by the accounting manager for the second one, and for the third we were able to collect the answers of the CEO. The interviews allowed to ask questions and collect information concerning the assessment of competitiveness, the evaluation of the competitive landscape, the competitive strategies deployed by the companies to face competition and had access to data about the sales and market share of each company.



For the secondary data source, we use data from documentary research out of articles, reports and statistics from different organizations (ONS, SIGAD, APAB, CNRC). These organizations are reliable references for statistics in Algeria set up by the government and available online. Concerning the data on milk powder imports, we used data from the United States Department of Agriculture listed on the data portal “IndexMundi” to get an overview of Algeria's imports on this issue. The collected data will support the collected information from the primary data and strengthen the analysis of the results.

All the data collected allowed us to perform the industry analysis based on the different parameters of each force of porter’s as represented in Appendix to determine the competitive intensity of this industry and highlight the competitive factors influencing the companies studied. The use of competitive forces is an essential step to identify the factors that directly or indirectly influence the strategies of companies to strengthen their position in the market.

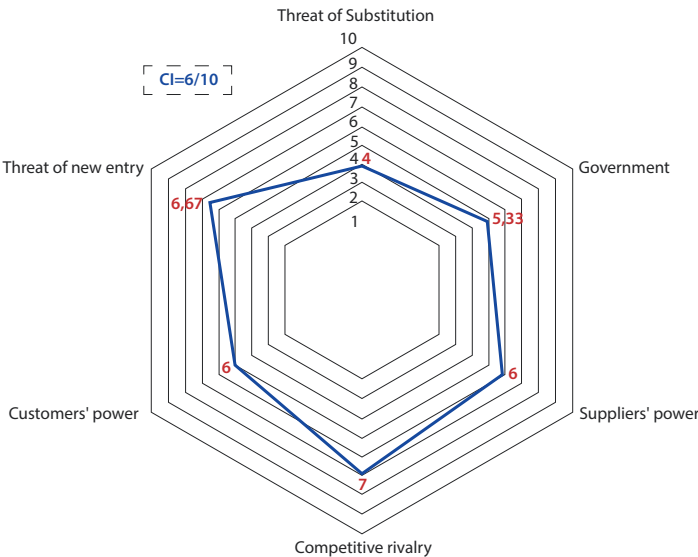
RESULTS AND DISCUSSION

To analyses the firm’s competitiveness, we present first the competitive analysis of the milk industry through Porter's competitive forces across the different data collected as mentioned in the previous section. Then complete with the results obtained from the interviews conducted that allowed us to identify the cost and non-cost factors of the cases study companies.

Analysis of the milk industry

To identify the intensity of Porter’s competitive forces (5+1) we have determined the elements that influence each of the milk industry’s forces. We have developed a grid on a scale of 1 to 10, such as “01= very low and 10=very strong”. According to the various parameters, for each parameter its influence has been estimated in support of the collected data, then an average was calculated to estimate the influence of the forces on the industry (see appendix 1).

Figure 2. Competitive intensity of the Milk industry



Source: Illustrated by the authors



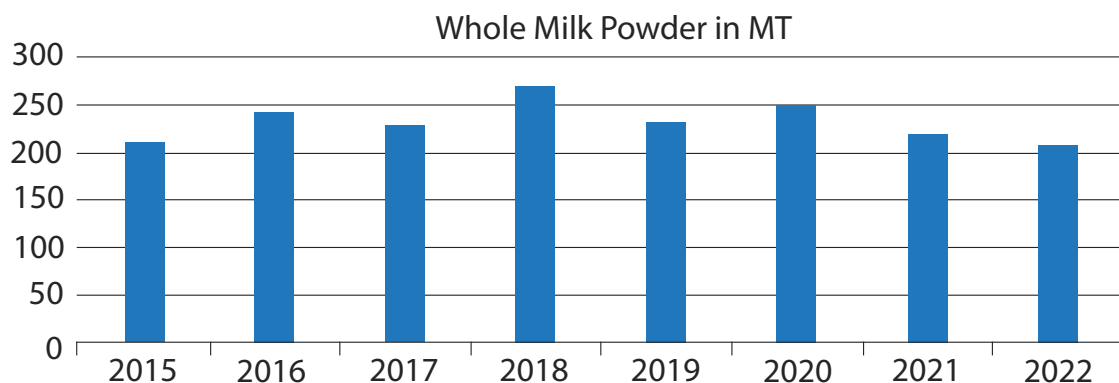
Competitive rivalry: The number of competitors activating in the dairy sector is important, offering products of quality and respecting the standards of hygiene. The proposed products are diversified with prices aligned with the competitors. The demand being strong, enterprises are busy offering a wide range of products by opting for the mass distribution. The existing competitors enjoy a strong reputation and a good brand image (Soummam covers 95%). Investment in R&D are low because this industry relies on incremental innovations.

In addition to local competition, the opening up to the outside world has been marked by the arrival of world leaders like Danone, Bel and Lactalis. These leaders represent a real potential of competition since they have the experience and skills, capital, notoriety and inputs to go to different segments and strengthen their positioning.

Customers power: Exports in this industry is very low, few industries export (Soummam exports 1% to Libya, Mauritania and Dubai). The majority of customers are local and concern the various distributors: hypermarkets, wholesalers and small shops of proximity. Some companies are integrated to manage the distribution as Soummam which has its own fleet of trucks and 300 exclusive distributors, Candia which has 51 distributors spread over the territory and Ramdy integrated with the subsidiary of the TMF group. The consumer has a wide choice of milk products in terms of taste, price, packaging and brands (Danone, Hodna, Candia, Ramy, Lactalis, etc.). B2B customers represent a large share, for the ice cream industry especially in summer when demand is increasing, the beverage industry for milk-based products, cookie and bakery industries.

Suppliers power: This industry depends on imported milk powder since local production is insufficient. The volumes importations in 2022 are 225 million tons, i.e., 14 MT more than 2015, Algeria is the second importins country after China (Index Mundi, 2023). The imports are shared between those won a license and the Algerian dairy buying agency (ONIL) which imports 40% to 50% milk powder (Hales, 2022). The main suppliers are France, Uruguay and Argentina, which account for 53% of milk powder imports, while the Cow's milk is 2.5 billion l in 2022. To strengthen the cattle stock, Algeria has imported 19634 million USD of dairy cows in 2020. Soummam is an industry that has invested in them and covers 60% of its needs.

Figure 3. Algeria's Milk powder Imports



Source: Data aggregated from Index Mundi, 2022, from <https://www.indexmundi.com/agriculture/?country=dz&commodity=powdered-whole-milk&graph=imports>



National production is 11%, a weak collection proportional to the number of breeders, those working in the informal sector, the quality of the milk collected and the subsidy of pasteurized milk, which is an obstacle for fresh milk. For inputs such as packaging various suppliers are available as Ramdy which integrated its subsidiary "General Emballage".

Threat of new entry: The ranking of the best dairy industries (see figure 4) shows a strong competition, specially two Chinese competitors stand out "Yili" and "Mengniu" which can invest in Algeria given the high consumption and potential of dairy products. Only barriers can prevent their entry. With technological barriers are significant, the competitors in place imported in 2019 nearly 1575 853 million Da of industrial equipment, something that the world leaders have and can use to be competitive.

Figure 4. Ranking of the top 20 dairy industries in the world

2019	2018	Company	Country of headquarters	Dairy turnover, 2018*	
				USD billion	EUR billion
1	1	Nestlé	Switzerland	24.3	20.6
2	2	Lactalis	France	20.8	17.6
3	3	Danone	France	18.0	15.2
4 ▲	4	Fonterra	New Zealand	14.3	12.1
5 ▲	5	Friesland Campina	Netherlands	13.8	11.6
6 ▼	6	Dairy Farmers of America	US	13.6	11.5
7	7	Arla Foods	Denmark/Sweden	12.4	10.5
8 ▲	8	Yili	China	11.2	9.5
9 ▼	9	Saputo	Canada	11.0	9.3
10	10	Mengniu	China	10.3	8.7

Source: Global Dairy top 20, 2020

For the capital barriers, multinationals have the necessary capital, Danone has absorbed Trèfle, a strategic segment to strengthen its position. Candia has bought the former Yoplait, Soummam has invested in 2 factories to strengthen its lines. The cost barriers are strong because the industries in place have more than 20 years of experience. In terms of the commercial barriers, they are weak since they are easily crossed by the new commers, because the competitors in place rely on exclusive distributors or representatives. Some political barriers may hinder the arrival of foreign entrants. with an encouragement to FDI, bureaucratic hurdles, gaps in land tenure and customs import tariffs.

Threat of substitution: Dairy products are essential for growth and health. Their substitution remains difficult, especially milk which is subsidized by the state. Yoghurt is a dessert for the Algerian consumer offered at affordable and accessible prices, but can be substituted by the various drinks available (Soda, juice).

The new trend of consuming vegetable products, boycotting all animal products, has led to the emergence of substitutes (almond milk, coconut milk), a trend that is not very popular in Algeria.

Government: Algeria remains the only country in the world that supports this industry through subsidies with 12 Da/l for breeders, 5 DA/l for milk collectors and 4 Da/l to dairies, while the use of raw milk makes them benefit from 6 Da/l (Hales, 2022). All this system is governed by the ONIL, which ensures the import of the raw material. The other derivatives can be packaged and sold at fixed prices by the industries.



The competitive intensity in this industry is 6/10 which indicates that profits are important and that companies that do not adapt will either disappear or be taken over. The competitive sources of this industry come from rivalry, the threat of new entrants and the power of suppliers and customers. So, existing companies will have to rely on the following SCF's that the environment imposes: innovation, marketing, cost control and network. Thus, the strategic options available to these industries are:

- Strengthen barriers to entry by implementing strategies for intensive growth and related diversification to strengthen the cost barrier and experience effect.
- The commercial barriers to entry through the upstream and downstream strategic partnership or even integration strategies to reduce the strength of customers and suppliers.
- Intensive and external growth that would allow to instantly lower the costs curve and ensure for the enterprise's advantage and profitability.
- Investment in marketing and R&D to strengthen the brand image.
- For the government, companies should use lobbying, thanks to their constantly growing size and alliance strategies.

The Alliances and integration strategies (upstream or downstream) could allow the emergence of "coopetition" relationships which will strengthen the barriers to market entry, and help companies to reinforce their cost strategies and be more competitive.

Competitiveness factors

The competitiveness of companies is governed by cost and non-cost factors that directly influence the company's activity.

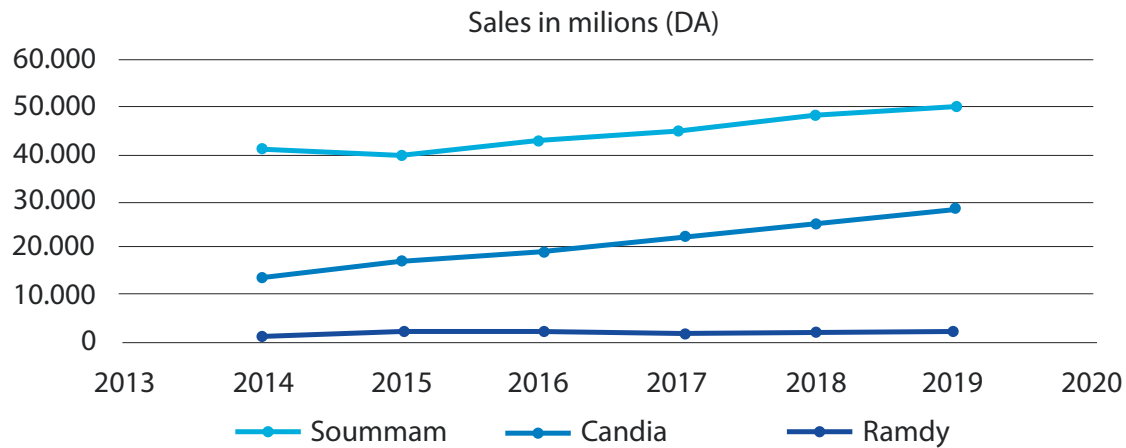
Considering the cost factors

Considering the determinants related to costs, as is the case for various firms, productivity and profitability indicators are used by companies to consider their competitiveness (Hermundsdottir & Aspelund, 2021). Since we only have data on the variation of sales, the appreciation of the latter allows us to observe the cost competitiveness. The aim here is not to compare companies, as sales are not representative of the activity, but to have an overall view of the growth in sales in each case.

The sales represented in millions according to the Algerian currency are in growth (see figure 3), except for Ramdy which registers decreases due to a non-adapted commercial strategy and their market shares have remained almost constant for Soummam and Candia. This analysis allows us to deduce that sales are taken into account by companies as a whole, whereas for a more real comparison, sales must correspond to the DAS to compare the product itself. As is the case for Soummam, which is the leader in yoghurts, but whose comparison by product shows that it is the leader in some ranges only and not others, notably with the «Activia» product, where Danone is the leader.



Figure 5. Companies' sales



Source: Illustrated by the authors

These results follow what Parienty (2013) states that even if market shares remain stable, enterprises are considered competitive under the condition of recording a growth in profit margins, which is the case of these companies. To reinforce this observation, we wanted to assess for each case the production results obtained on the basis of individual capacities. Thus, Candia and Soummam recorded satisfactory results by using their full capacity, with a very low rate of lack of production. While Ramdy with capacities lower than those of competitors, recorded a significant rate of and recurrent breakdowns on its equipment. On the other hand, labor costs are high for all the cases, as this industry requires specific know-how and skills.

Beyond economies of scale and the experience effect, industries may experience benefits related to reduced input costs, better capacity utilization, better production techniques, product design and conception, or organizational efficiency (Lambin & De Moerloose, 2016). Elements that Soummam has taken into consideration with its backward integration strategy that allows it to improve its cost structure.



Non-cost competitiveness factors

The non-cost factors highlighted in this analysis allow us to group the 08 factors and summarize them in the following figure:

Figure 6. Enterprise competitiveness factors



Source: Designed by the authors

Quality is one of the factors detected, it is an essential criterion linked to the consumer's choice but also to the agri-food industry's requirements. These companies have laboratories and are certified to ISO 22000 and 9001. However, having a certificate is not enough, for which we have integrated various parameters around quality performance. Their results show low rates of waste, defects and product returns, these results reinforce the added value of the product and their positioning. Results that confirm the importance of this factor for the company's competitiveness and supports the work of (Amokrane & Bekour, 2014); (Hermundsdottir & Aspelund, 2021).

Often linked to costs, the firm **size** is a significant factor in competitiveness since the idea that larger firms are more efficient is endorsed (Perez-Gomez, Arbelo-Perez, & Arbelo, 2018), and have the resources and capabilities (Falconi, Jansen, & Rollo, 2020). Employing more than 250 employees, the enterprises have confirmed the importance of this factor, as it is an asset as they have capacity that small ones do not have. However, the case of Ramdy is an example of exception as underlined in Ben Mlouka's (2007) work, despite its size and capacity, it is experiencing cyclical declines. In this sense the size offers the advantage of having resources but must be supported by adequate strategies to ensure competitiveness.

The **customer/consumer relationship** provide a competitive advantage so that it concerns satisfaction, loyalty, retention, brand and notoriety, anticipation of customer needs (Almazroi, Khedr, & Idrees, 2021). The results show that Soummam records high results which justify its notoriety and its position having a market coverage of 95%. Candia also recorded high results but with a low level of customer loyalty, which requires an investment in an appropriate strategy to strengthen its brand strategy.



As for Ramdy, it is the absence of taking into consideration the needs of the consumers neglecting the strategy of anticipation their needs, which generates average results, even if it tries to make them loyal by managing their requests. This is why the sales shown in figure 03 is not a reflection of customer loyalty, but of their satisfaction.

One of the key sources of competitive advantage is **HR** (Chikan, Czako, Kiss-Dobronyi, & Losonci, 2022). In order to analyze it, we evaluated the following parameters likely to create value: departure/arrival rate, work stoppages, qualification, creativity, knowledge transfer and team spirit. Soummam records a very satisfactory rating for its HR, however with a high labor cost due to the nature of the activity that requires specific skills. Candia has average results with a high level of commitment and belonging but with little creativity, despite the company's efforts to consider staff initiatives. Ramdy records weak results with a divergence between departure rates and sense of belonging but overall, with an average rate of creativity. In the case of these enterprises, employee training is essential to strengthen their HR strategy and capitalize the knowledge to achieve a unique capital.

Organizational capabilities are an essential part of company's competitiveness. Having resources allows you to set up strategies and position yourself according to them. Relying on these, Soummam and Candia are aware that these advantages are not sustainable and that they can be emitted by competitors, while Ramdy is content to keep its current advantages. These resources should therefore a basis for encouraging innovation (Parmentier, 2014); (Neves, 2016), which is only introduced when they are necessary without taking into account the demand. The strategies put in place are all influenced by the vision of the owner/manager since they are family businesses. In this sense, having capacities is not enough, it is also necessary to manage them in order to build a competitive advantage, this confirms the work of Teece (2014).

Exporting companies are more competitive (Hermundsdottir & Aspelund, 2021), because they can benefit from access to new information and knowledge to be more efficient (Perez-Gomez, Arbelo-Perez, & Arbelo, 2018). In our case only Soummam exports 1% of its production to Libya, Mauritania, Qatar and Oman. This allows it to strengthen its productivity and accelerate its economies of scale and experience effect. The low rate is linked to the quantities consumed in Algeria and the difficulty of exporting fresh products requiring specific logistics, reasons for which Candia has stopped its exports to Libya. Thus, companies that export are more competitive than those that do not.

To assess the **organizational agility** factor, we evaluated it according to 12 items from Rennison *et al* (2014) work measured on a scale of 1 to 5 (not satisfied at all to very satisfied). The maximum score to be obtained is 60 (12*5) while "0" cannot be obtained since a company that survives the proofs of time and still exist has a certain competitiveness. The scores obtained are 36, 47 and 57 which correspond to Ramdy, Soummam and Candia. These scores mean that these companies, because of their large size, have the resources to have room to innovate and grow, Scores in line with the work of Rennison, Novin and Verstraete (2014). Candia's superior score is the fact that it is a leader in its field supported by the franchise links with Candia France that allows it to be more flexible and adapt to environment changes.

Finally, **innovation** is a criterion of competitiveness and is incremental in the agri-food industry. Considered by the companies studied as a central element of their strategic plans and that they have the advantage of having self-financing capacities. However, only Soummam has an R&D department, with a budget allocated to it. This last one allowed him to launch in the UHT milk, and to strengthen its products ranges. In addition, those who export innovate more, which is the case of Soummam. Candia and Ramdy were content to integrate innovations by launching new products. The lack of an R&D structure is not related to funding given their size and position on the market, but rather to the will of the managers and the lack of know-how that foreign companies possess as confirmed by the work of Gani (2020).



The nature of integrated innovations is mostly incremental (development or improvement of existing products), as confirmed by the work of Tohru, Tomofumi and Daisuke (2020) on food industries whose primary competence are brands, tastes, marketing, and package designs, since unlike other industries this one has a low technological content, so they do not suffer the same technological influences.

CONCLUSION

The enterprise competitiveness as long as treated in the management, remains a topical subject. The search for an advantage to strengthen or to acquire a new one is the source that drives any company, relying on its resources or on the forces of the environment. The theoretical aspect of this paper has led to confirm the various works in management by grouping the approaches on the competitive advantage and competitiveness of companies. A theoretical sub-base that consolidates the latter on a multidimensional approach (Porter, 1985); (Barney, 1991); (Falciola, Jansen, & Rollo, 2020); (Chikan, Czako, Kiss-Dobronyi, & Losonci, 2022).

The AFI are predestined to be a catalyst for the economy, with a population growth and changing consumption patterns that have sparked a pursuit to achieve self-sufficiency, especially for the dairy industry. The competition that governs this industry led us to analyze Soummam, Candia and Ramdy companies operating in the latter.

The analysis of the environment in which the studied companies evolve through Porter's competitive forces, has revealed the power that these companies hold more or less but also the weak barriers to entry this industry. The proposed strategic orientations could help the companies to reinforce these barriers, which in parallel would strengthen their positions.

The results obtained made it possible to determine the competitiveness factors of the three cases studied through cost and non-cost factors. The cost factors are oriented towards productivity, market share and profitability. While the non-cost factors concern 08 factors: quality, size, organizational capabilities, organizational agility, customer relations, exports, human resources and innovation.

Even though these factors have been cited in various studies on firms' competitiveness, the findings of this analysis are based on a reduced number of cases involving the large dairy industries, and the data collected are specific to this industry in a particular geographical context. The findings do not permit to be generalizable to all firms (SMEs and other firm size). These limitations represent an avenue for future research.



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**APPENDIX**

Milk industry	1	2	3	4	5	6	7	8	9	10
Import of milk powder									x	
Price fluctuation							x			
Import duty					x					
Import by the ONIL								x		
Import of milk cows			x							
Packaging and labelling		x								
Upstream integration				x						
Technologies & equipment										x
Average supplier						6				
Product costs				x						
Downstream integration			x							
Customer concentration							x			
Brand						X				
Product range									x	
Influencers							x			
Average customers						6				
Geographical coverage									x	
Quality-price ratio							x			
Degree of integration				x						
Width of the range									x	
Degree of specialization							x			
Brand & reputation										x
Distribution channels							x			
Investment in R&D			x							



Milk industry	1	2	3	4	5	6	7	8	9	10
Average rivals					7					
Costs									x	
Technologies							x			
Access to inputs						X				
Capital								x		
Access to distribution							x			
Government policy			x							
Average newcomer					6,67					
Price of substitute				x						
Cost of entry/change					x					
Trends			x							
Average substitution					4					
Price					x					
Laws & regulations				x						
Inputs							x			
Average government					5,33					
Competitive intensity					5,83					



KONKURENTNOST PREDUZEĆA U INDUSTRIJI MLEKA

Rezime:

Suočeni s globalizacijom i njenim efektima, konkurentnost kompanije ostaje bitan element za njihov rast i opstanak. Ovaj doprinos ima za cilj da rasvetli konkurentsku prednost kao izvor konkurentnosti kompanije, analizom konkurentskog intenziteta u industriji mleka na osnovu Porterovih konkurentskih snaga podržanih višestrukom studijom slučaja kompanija Bejaia koje posluju u industriji mleka.

Za ovaj rad proučavali smo velike privatne industrije sa više od 20 godina iskustva u svojim oblastima poslovanja i sa zajedničkom strategijom troškova. Rezultati istraživanja su pokazali da je intenzitet konkurencije u ovoj industriji važan i da je konkurentska prednost vođena skupom faktora troškova i netroškova koji omogućavaju proučavanim slučajevima da osnaže svoje pozicije oslanjajući se na svoje konkurentske prednosti.

Ključne reči:

konkurentnost,
konkurentska prednost,
industrija mleka.