MICRO BREWERY “LA MINERVA”

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Abstract

This case is centered around a young entrepreneur in Guadalajara, Mexico. He is the main owner of a recently opened, successful restaurant with a microbrewery. He sees potential to commercialize the beer, but with the existing machinery this is not possible. He has gathered the information that he considers important for making a decision, and now wants to evaluate this investment project. Also, he needs to convince the minority owners to invest money, because he does not have sufficient funds himself. A detailed Teaching Note is available from the author.

KEY WORDS: Project evaluation, economic engineering techniques, entrepreneurship, microbrewery.

INTRODUCTION

After only three months of operation, Jesus Briseño’s restaurant with microbrewery in Guadalajara, Mexico was more profitable than he had dreamed. He saw potential to commercialize the beer, but with the existing machinery this was not possible. He had searched and found attractive brewery equipment. Jesus had an option to buy the equipment until the end of the month – it was now December 10 of the year 2003. He did not have enough resources to finance the project himself, so he needed to convince the other -minority- owners of the restaurant to invest only a few months after the restaurant had opened a new, even larger amount in the business.

THE PRECEDENTS

It was Jesús Briseño who in the summer of 2003 had persuaded five friends with his enthusiasm to invest a total of $2 million pesos (equivalent to US$190,000 in those days) in a new business: a casual restaurant with a microbrewery. The brewery was his dream; the restaurant was the complementary part where the beer was sold. The restaurant named “Tierra de Malta” was opened in September 2003. The beer was brewed in the center of the restaurant, and sold under the brand name “La Minerva”.

They had imported a complete secondhand beer brewery from Canada, through an intermediary on the Internet. It had a capacity of 3,300 liters monthly and an initial investment of 67,500 US dollars. La Minerva produced three types of beer: Colonial, Viena and a special type changing with the seasons. All were German style lager types, with a distinct, much fuller taste than similar beer styles offered by the large breweries. See Exhibit 1 for a picture of the Vienna type Minerva beer, and Exhibit 3 for general information about beer types and brewers. Jesus believed that there was market potential: “Guadalajara was ready for a local beer, with a distinct taste. There was a growing group of people that wanted something different than always the same beers. We stepped into that niche”.

Tierra de Malta was located in the Providencia-area in Guadalajara, Mexico. Guadalajara was the second largest city of Mexico, with an estimated number of inhabitants of 4 million. See Exhibit 2 for a map of Mexico. The Providencia-area was well known for its tranquil atmosphere, and its wide variety of
restaurants and coffee bars. These establishments focused on the upper middle class, for the age of 20 and up. This area was selected because the price of the beer would be higher than what the major brands were sold for: the sale price of La Minerva was $33 pesos per 450 ml glass, whereas the major brands cost around $20 pesos per 350 ml bottle. Jesus considered the upper middle class as the most attractive market for the La Minerva beer: these people were most interested in trying something different and were prepared and able to pay more for a beer.

The concept of a microbrewery was not new in Guadalajara: there was a brewpub (“Der Krug”), but that was a small bar, in a different part of the city, with a very distinct public (older, and a lower social-economic profile) and different atmosphere (more bohemian). The beer production was in very small batches.

Both, the restaurant and the microbrewery had been successful since the start. Jesus and the two active co-owners of the business Alejandro and Armando were aware of a phenomenon concerning new bars and restaurants in Guadalajara. Alejandro explained: "A new business can easily turn into a hot spot. Instead of slowly growing and improving gradually, there is a tremendous pressure because of the high number of clients from the start. The sales are high, but there is a risk of losing control and of reducing quality of the service. Another problem is that in Guadalajara the rotation of the staff in the sector is high. As a consequence, the preparation of the food and the service from the waiters is very variable. All of this can cause a bad reputation and then clients will no longer visit your establishment. In the worst case your business ends there".

He added about Tierra de Malta: "From the start we’ve had a great success; this was definitely one of the hot spots. But since we are aware of the culture, we are constantly monitoring the situation for not falling into this trap. It requires much attention, but we feel that we have it under control".

THE PARTNERS

Jesus owned 55% of the business, and his friends Alejandro Orozco and Armando Garcia participated for 20%, respectively 10%. These three partners were involved in the daily operations of the business. The other three owners (participation of 5% each) were friends of Jesus and Alejandro, who liked the entrepreneurial spirit of Jesus and the idea of participating in a restaurant with a brewery. None of the partners did specify any financial performance to be made. They trusted Jesus and they believed that the business would become successful. Although Jesus had majority voting rights, he made it clear that he would look for consensus when making important decisions.

Jesus Briseño was not only the main owner, but also the general manager of the business (brewery and restaurant), and the brew master. He graduated as an engineer in electronic systems. He had always enjoyed beers and its production. In 2000 he took an intensive course on beer production in the renowned Siebel Institute in Chicago, USA. He had worked for six months in “The Beer Factory”, a restaurant with a microbrewery in Mexico City. There he formed part of the team responsible for the technical process of the production of beer. After this period he worked together with his father, starting up a factory for the production of paper bags. He took care of the administration for one year and a half. But the beer continued its attraction and he was looking for ways to make his dream come true: to own and operate his own brewery. He was 25 years old and characterized himself as practical and creative. His friend and partner in the business Alejandro Orozco added that he was a self-confident entrepreneurial person. He knew how to listen and value the opinions of other persons. He made decisions together with others and was not authoritarian, even though he had the majority of the shares and therefore full control over the company.

Second largest owner was Alejandro Orozco, 22 years old, who was a 6th semester student of finance. He was a good friend of Jesus. Alejandro assisted in the administration and in the operations of the restaurant. He did not want to have great responsibilities in the business, because of his studies and the part-time work in his father’s business (a grain mill). He described himself as a social, active, intuitive and responsible person.

The third active owner was Armando Garcia, aged 33, who was the operating manager of the restaurant. Armando graduated from Hotel Management in 1992. Since then he had worked for more than 10 years in various restaurants in Mexico City. They had met in Mexico City when Jesus lived there for 2 years. They had become close friends. He was interested in participating in the business and Jesus was interested that he would join in, because of his long experience in restaurants.
THE BEER INDUSTRY IN MEXICO

Producers

Two Mexican corporations dominated the beer market in Mexico: Grupo Modelo (Modelo) and Cervecería Cuauhtémoc Moctezuma (CCM), part of Grupo Femsa. Modelo had a market share of 57% and was particularly strong in the central region of the country. CCM had a market share of 42% and was relatively strong in the North and in the Yucatan peninsula. [Galván] See Exhibit 4 for general information about the two largest beer producers.

Foreign beer brewers and national microbreweries had the remaining 1-2%. The foreign beer-brewing corporations tried to enter the Mexican market through strategic alliances, participations, and on its own. Foreign beers were only sold in supermarkets and in the more exclusive restaurants and bars. The largest part of the sales of foreign beers was in the U.S. border area of Mexico.

Microbreweries formed a very small part of the Mexican beer market. The largest was microbrewery Especialidades Cerveceras S.A. from the northern city of Monterrey, which brewed the Casta beer. Casta was available in five Ale types varieties. Their bottled beers were available in selected retail locations around the country. [Especialidades Cervecerías]

Other microbreweries formed part of a bar or restaurant. Jesus considered that the most well known ones in the country were “the Beer Factory” in Mexico City, and “Sierra Madre” in Monterrey. Both produced primarily for the sale in the own restaurant, but they also had small production in bottles, which were sold in the store belonging to the restaurant.

Demand

Raúl Rodríguez Márquez, president of the National Chamber of the Beer and Malt Industry in Mexico commented that Mexico was considered one of the most attractive markets in the world by beer producing corporations, together with –amongst others– China and Brazil. “The population that enters the legal age to consume beer in our country (18 years) is annually around 1 million”, he pointed out. “Apart from that, we have relatively low beer consumption per capita in Mexico of 53 liters per year”. [Takagui]

According to Jesus the situation in Guadalajara was complicated for beer ventures: “Guadalajara is traditional and conservative. This also plays a role in the beer industry: the Grupo Modelo brands are very popular here, not even Cervecería Cuauthemoc Moctezuma can break through that. It is very hard to enter the beer market here. Still, in a large city there are always persons that are interested in something distinct. With the sales of the last three months it is clear for me that the demand exists. We want to promote a culture where people appreciate different types of beers – like in Europe or in the USA”.

Distribution Channels

The main distribution channels in Guadalajara were the liquor shops, the mini-supermarkets and the convenience stores. Restaurants and bars were another important distribution channel for the beer industry. Some served the beers from the barrel, but the majority sold the beer in bottles.

All the liquor shops and convenience stores, and most of the mini-supermarkets, restaurants and bars had contracts of exclusivity. The beer brewers supported the business economically, in return for the exclusive right to sell their brands.

Sales in supermarkets were low, yet on the rise. Here one could buy almost all brands available in the Mexican market, including foreign beers.

THE EXPANSION PROJECT

The acceptance of the beer was well above the expectations of Jesus and Alejandro. In September, they sold 2,825 liters, in October 3,300 and in November 3,120. December showed equal positive figures: the production could hardly keep up with the demand. They saw opportunities in the local beer market, but with the current production capacity it would be impossible to exploit them. They considered the more exclusive restaurants and bars to be the most interesting niche in the market: the clients wanted something different, something special, and were willing to pay a higher price for that. Also, these exclusive businesses generally did not have an exclusivity contract with a large brewery. In this segment
the imported beers were the principal competitors. Jesus knew the local market well and had the experience that many people preferred a local beer.

Since there was no secondhand market for beer brewery equipment in Mexico, Jesus once again turned to the USA and Canada for importing the equipment. After some weeks of searching, Jesus found an interesting offer in Philadelphia, USA. He asked two of his former fellow students from the Siebel Institute for advice and both claimed that it appeared to be a very attractive deal. He then decided to travel to Philadelphia to see the beer brewery. He asked Alejandro to join him for a second opinion and because Alejandro was the second largest shareholder of the business. They traveled in the first week of December 2003.

The equipment in Philadelphia was secondhand, but relatively new (construction year 2000), in very good condition, and —which was rare— it was complete. This had the advantages that all parts of the equipment were of the same brand and construction year, with the same usage. The capacity was 90,000 liters monthly, much higher than they had planned: they had thought of a production capacity of approximately 20,000 liters per month. Yet, equipment with a lower capacity would not lower the price equally; in fact the difference in price with smaller equipment was marginal (Jesus estimated that a 20,000 liter brewery would cost only 20% less than a 90,000 liter brewery). It was fully armed still, but no longer in use. The seller did not want to sell the brewery in parts, except for the steam boiler and the cold room. From a technical point of view Jesus did not consider it essential to buy these parts there and it would be much cheaper to buy or construct them in Mexico.

Jesus and Alejandro were interested in the equipment and took an option to buy the equipment until the end of the month. They started to work on the details: the total investment, the time frame, the consequences for the organization, and forecasts of the sales and costs.

**Time frame**

After discussing the issue with the seller and some of his former fellow students from the University of Siebel, Jesus thought that it would be possible to assemble the brewery in 3 to 4 months. The seller invited Jesus to see how the machinery would be disassembled for the transport, so that it would be easier to assemble it later. If they would buy the machinery by the end of December, then it would arrive in Guadalajara in February, the installation would take from March to June, and the production could start in July 2004.

For the evaluation of the investment project the evaluation period was set at 6 years.

**The initial investment**

- Steam boiler, cold room, electric and hydraulic equipment and other adjustments to the warehouse: $1.3 million pesos plus 15% VAT. Useful life: 20 years. Recovery period (fiscal): 10 years.
- Barrels (50 of 30 liters each and 30 of 60 liters each), draft towers (10): US$12,000* plus 15% VAT. Useful life: 4 years. Recovery period (fiscal): 10 years.
- Barrel cleaning and filling equipment: US$8,000* plus 15% VAT. Useful life: 20 years. Recovery period (fiscal): 10 years.
- Transportation equipment (secondhand small truck): approximately $100,000 pesos (including 15% VAT) Useful life: 4 years. Recovery period (fiscal): 4 years.
- Office equipment: $20,000 pesos (including 15% VAT). Useful life: 4 years. Recovery period (fiscal): 10 years.
- Computer equipment: $0 (because Jesús and Alejandro were planning to bring their own computers to the company).
- Working capital: $500,000 pesos, of which inventories $300,000 (including 15% VAT).

* The exchange rate of the Mexican peso versus the US dollar in the first 10 days in December 2003 was on average 11.00:1

**Financing the project: source and costs**

Neither the company nor the owners could borrow money because at that time the banks did not lend easily to such young entrepreneurs. The owners would have to contribute their part if they wanted to
stay with the same percentage of participation. None of the owners had a clear idea about what their cost of capital was or should be.

To be able to finance his participation in the current business, one of the owners had borrowed money from his father, and had agreed to pay 8% interest per year. This was determined from the average between the savings and the borrowing rate that the bank charged his father, 6% respectively 10%. The debt repayment schedule was not filled in yet, that would come if the company would start generating money. Jesus considered this rate of 8% as the cost of capital for the project.

Organization

For fiscal reasons, they would split the business in two parts, just like they had done with Tierra de Malta and La Minerva (La Minerva sold the beer at cost price to Tierra de Malta). In Mexico a special tax (IEPS) of 25% of the sales price was charged for products and services considered damaging the health. In the new microbrewery La Minerva, the “producer” would sell the beer at cost price to the “distributor”, which then charged the normal price to the public. The owners of both parts were the same, with the same participation in each of them.

The project would have consequences for Tierra de Malta: Jesus would have to leave his general manager position entirely to dedicate himself to the new business. Armando could substitute him as the general manager while staying in charge of the operations. Alejandro would spend more time working in the business. The three active partners had discussed this and thought that it was possible.

Forecasts of sales

Jesus made various forecasts for the sales, based on his experience and feeling – he had not performed any formal market research. He had selected three scenarios that could occur with equal probability:

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<thead>
<tr>
<th>Scenario</th>
<th>Liters sold monthly*</th>
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<tbody>
<tr>
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<td>1-6 months</td>
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<td>1 – pessimistic</td>
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<td>2 – most likely</td>
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<td>3 – optimistic</td>
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* Excluding Tierra de Malta – the microbrewery in the restaurant would continue to operate and produce for selling in the restaurant.

The sales price was set at $17.00 pesos per liter ($510 pesos per barrel of 30 liters, or $1,020 pesos per barrel of 60 liters) -plus 15% VAT.

Forecasts of costs

- Variable costs (production): $3.90 pesos per liter (malt, hop, filters, water, gas)
- Fixed cost
  - production:
    - energy: $10,000 pesos monthly (no VAT included).
    - rent for the brewery (production, storage and offices): $26,000 pesos monthly (excl. 15% VAT).
    - depreciation of the fixed assets. In Mexico the only allowed depreciation method was the Straight Line method, with the Salvage Value $0 and the useful life determined by the asset type:
      - machinery and office equipment: 10 years
      - transportation equipment: 4 years
      - computer equipment: 3 years
  - salaries (includes social security premiums and other fringe benefits):
    - in the first 6 months: one full-time employee and one part-time accountant (one day per week): $15,000 pesos monthly.
after the first 6 months – in addition to the salary expenses mentioned above: Jesús Briseño – the general manager – would receive $16,000 pesos monthly.

- taxes: the Mexican (corporate) income tax was 32% taxes over net income.
- sales:
  - telephone: $5,000 pesos monthly (incl. 15% VAT).
  - salary of a sales person: $12,000 pesos monthly.

Jesus had no idea how the prices would develop over time. He did find out that the Mexican Central Bank (Banxico) had forecasted an inflation of 4% annual for the next two years. For his forecasts of both sales and costs he assumed a 4% annual effective inflation, for the entire evaluation time horizon.

THE DECISION

Jesus Briseño and Alejandro Orozco thought how to integrate all the information they had gathered about the expansion project. The secondhand machinery that they were interested in buying had a capacity much higher than they had thought of. On the other hand, the price seemed very attractive. They had to present a proposal to the other owners to see what they thought and to see who wanted to continue and contribute the additional money.

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EXHIBIT 1

LA MINERVA – VIENNA TYPE

![Beer glass](image.png)
Beer types
All beer can be classified as either a lager or an ale. The differences begin during the brewing process. Whether the beer is an ale or lager is defined by the yeast used in the brew and the temperature at which fermentation takes place.

- **Ales** are brewed with top-fermenting yeast which allows for rapid fermentation at warmer temperatures. Ale can be bitter and spicy or malty and sweet. They can also be any color and strength. It tends to have a more fruity character than a lager.

- **Lagers** are brewed with bottom-fermenting yeast which ferment more slowly and at colder temperatures. Named after its founder, Louis Lager, this drink is characterized mainly by its prominent malt and hops flavor. Brewing draws sweetness from the malt; hops are added during the process. The beer is then carbonated and aged over time. The lager beer was introduced in 1840 and is now the dominant beer type in the world, except for Great Britain. Lager beers tend to be more pale, drier and more foamy and contain less alcohol than ales.

Types of beers mentioned in the case (all are lagers):
- **Marzen**: Ur-Marzen, meaning “original of March”, are beers that were originally brewed in March, and made stronger to remain preserved over the summer months, prior to the help of modern refrigeration. From the Ur-Marzen the Vienna, Munich, and Marzen types were derived.

  Vienna: Originally from Vienna, Austria. Reddish color, amber, sweet taste. Austrians colonizing in Mexico brought their Vienna style lager and yeast to their new home.

  Munich: Originally from Munich, Germany. Pronounced malty aroma and flavor that dominates over a clean moderate hop bitterness. They can be chocolaty, chewy, and often exhibit a bread-like aroma, from the use of Munich malt. Colors range from light brown to dark brown.
*Pilsner:* Pilsner became popular in the mid-1800s in Bohemia (Czech Republic). Pilsners are highly hopped and full of flavor. They are soft to drink and don't have as thick of a body as other beers. Brewed with hops and often have caramel malt added to give a golden color and gentle flavor.

**Types of beer producers:**

One should speak about three categories of beer producers: the home brewers, the micobrewery and the industrial producers.

- The home brewers have quite rudimentary equipment that allows them –with some luck– to repeat more or less the same recipe in different batches.
- The micobreweries have more sophisticated equipment: tanks, pumps, filters, etc. but they do not reach the level of sophistication of the industrial producers. Many parts of the process are manually operated and typically one looks for a personal profile.
- Lastly, the industrial breweries have equipment that fabricates thousands and thousands of liters and not many persons are involved in the process. The majority of the process is automatic and the quantities and chemistry of the elements is constantly controlled.

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**EXHIBIT 4**

**THE TWO LARGEST BEER BREWERS IN MEXICO**

**Grupo Modelo (Modelo)**

Modelo had a strong countrywide presence (57% market share) with a dominant position in the center of the country (including Guadalajara). The brands of Modelo available nationwide were: Corona and Modelo Especial (both pilsener type), Modelo Light (light lager) and Negra Modelo (Munich type). The local brands were: León (Munich type), Victoria (Vienna type), Montejo, Pacifico and Estrella (all pilsener type). Estrella was the regional brand of Guadalajara and surroundings.

Since 1993 Modelo had maintained an association with Anheuser-Busch –the largest beer brewer in the world– that raised in 1997 its participation to 35.1%.

According to the analysts of BBVA Bancomer “the fundamentals for the next quarters continue to be positive”.

**Cervecería Cuauhtémoc Moctezuma (CCM)**

CCM which was formed in 1985 through a merger between the two largest beer brewers in Monterrey, Mexico. Grupo Femsa had a participation of 70% in CCM, and the Labatt Brewing Company (in 2003 Interbrew –the second largest beer brewer in the world) owned the remaining 30% since 1994. Grupo Femsa included also a bottling corporation licensed by Coca Cola and the largest (nationwide) chain of convenience stores (OXXO).

CCM had a countrywide presence (42% market share) with a strong position in the North and the Southeast of the country. All of its brands were available nationwide: Sol, Tecate, Superior, Carta Blanca, Indio, Bohemia (all pilsener types), dos Equis (Vienna type) and –exclusively sold in the Christmas period– Noche Buena (Munich type).

**Source:**

BBVA Bancomer, Investors update – Grupo Modelo (June 6 2003)