University of Azuay

Faculty of Law

School of International Studies

Internationalization Model with Open Innovation of SMEs in the Balanced Food Sector Towards the Peruvian Market: Applied to BalGran Company

Author:
Karla Rodríguez Méndez

Director:
Juan Carlos Pauta Ortiz

Cuenca – Ecuador
2022

DEDICATION

To the one who in life was one of my fundamental pillars. To the one who loved me unconditionally. To the one who gave all of himself to see me happy. To the one whose dream was to see me graduate someday, my father Carlos.

APPRECIATIONS

My deepest gratitude to the one who made all this posible. To one of the people I love the most in this world, my aunt Delia.

Table of contents

Modelo De Internacionalización Con Innovación Abierta De Las PYMES Del Sector De Alimentos Balanceados Hacia El Mercado Peruano: Aplicado A La Empresa BalGran

Resumen

El presente trabajo de investigación tiene como objetivo diagnosticar la situación actual de la empresa de balanceados para animales de granja BalGran Cía. Ltda., para posteriormente elaborar un estudio de factibilidad de su ingreso al mercado peruano. Inicialmente, se llevó a cabo una revisión bibliográfica de los principales fundamentos teóricos de comercio, internacionalización e innovación abierta. Teniendo las bases teóricas y, una vez determinadas las fortalezas, oportunidades, debilidades y amenazas de la compañía se llevó a cabo un estudio del mercado meta, buscando determinar la manera en la que las PYMES de este sector manufacturero tengan la mayor cantidad posible de beneficios al ingresar a dicho mercado utilizando la innovación abierta en un modelo de internacionalización aplicado a la empresa BalGran.

Palabras clave: PYMES, alimentos balanceados, internacionalización, innovación abierta.

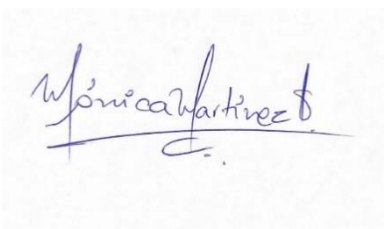
Internationalization Model with Open Innovation of SMEs in the Balanced Food Sector Towards the Peruvian Market: Applied to BalGran Company

Abstract

The purpose of this research work is to diagnose the current situation of the farm animal food company BalGran in order to subsequently prepare a feasibility study for its entry into the Peruvian market. Initially, a bibliographic review of the main theoretical foundations of trade, internationalization and open innovation was carried out. Once the company's strengths, opportunities, weaknesses and threats were determined, a study of the target market was carried out, seeking to determine the way in which SMEs in this manufacturing sector could have the greatest possible benefits when entering this market by using open innovation in an internationalization model applied to BalGran company.

Key words: SMEs, balanced food, internationalization, open innovation.

Translated by Reviewed by



Karla Rodríguez Méndez **Mónica Martínez Sojos**

1. Introduction

BalGran Cía. Ltda. is a company from Cuenca dedicated to the manufacture of balanced food for farm animals, it is classified within the guidelines and definitions established by the SRI as an SME and its operations are carried out at a national level. Analyzing its status and environment would allow proposing the adoption of external knowledge (open innovation) to project its sales to international markets relying on the use and implementation of information technologies according to its needs.

The technological limitations of the company do not allow taking advantage of the current opportunities, it should be considered the importance of the internet as a medium that allows direct and personalized interactivity with current and potential customers; in addition, through the same channel it is possible to perform different active participations with customers such as: advertising and information, pre-sales, order configuration, purchases, after-sales services, to determine their tastes and preferences (Salazar et al., 2017). As stated by some researchers, the need for internationalization through e-commerce arises from the demand of companies and administration, to make better use of information technologies and find a better way to apply strategies and innovation to increase the relationship between customer and supplier (Jurado, 2018).

In addition, the researchers, Gorschek et al. (2006), had the opportunity to have a 'front row' view of the challenges faced by companies (industry). Practitioners acting within these industries benefit to a large extent from the development of new techniques, tools and methods starting with real problems. The partnership and collaboration between researchers and practitioners creates a sphere of mutual trust and enables the transfer of knowledge and technologies.

1.1 Objectives

To propose a model of internationalization with open innovation of SMEs in the balanced feed sector towards the Peruvian market: applied to the BalGran company.

- To analyze the situation of the BalGran food company.
- To analyze the target market and the export process.
- To determine the internationalization process and the inclusion of open innovation.
- To propose an internationalization model with open innovation.

1.2 Theoretical framework

SMES

According to SRI (2012), SMEs are a group of small and medium-sized companies that, according to their sales volume, number of workers, capital stock and level of production or assets, have characteristics typical of this class of economic entities. On the one hand, the so-called 'small enterprise' comprises 10 to 49 workers and annual sales or revenues from US$300,001 to US$1,000,000. On the other hand, the 'medium-sized enterprise' comprises a minimum of 50 and a maximum of 199 workers and annual sales or income from US$ 1'000,001 to US$ 5'000,000.

Commerce

The professional work, which has lucrative purposes, that can include the purchase, sale or exchange of goods and services, is usually called commerce. This diligence is an evident result derived from the division of labor inherent to all types of society. It is the action of exchanging economic goods through the transaction of goods for money (Lafuente, 2010).

Foreign trade

The so-called foreign trade or international trade is an exchange, generally of some product for money, with the particularity that in order for this exchange to take place, a "border" must be crossed (Bustillo, 2001). The theories of international trade have been conceived to answer two basic and closely related questions: what are the causes of trade and what are the effects of international trade on national production and consumption? They also try to explain the volume, structure of trade and the prices at which

goods are exchanged (González, 2011). Bustillo (2001) then states that these are the main theories of international trade:

- Adam Smith and the theory of absolute advantage
- David Ricardo and the theory of comparative advantage
- Stuart Mill and the concept of international price
- Heckscher-Ohlin and the factor endowments of production
- The Free Trade-Protectionism Debate and the Underdeveloped Countries

Generally, production, trade and consumption, over time, undergo structural changes of various kinds. Several factors are candidates to explain this type of variation: changes in relative prices, technical progress, the expansion of services in production and consumption, the emergence of international production sharing systems (outsourcing), among others (Durán, 2016).

E-commerce

E-commerce involves the use of the Internet, the World Wide Web, applications and browsers running on mobile devices to conduct business transactions (Laudon and Guercio, 2017, pp. 8-9). E-commerce allows rethinking the objectives in the company with a clear strategic direction, facilitating the creation of new products and markets, new distribution channels, reducing the cost of business activities and favoring the opening of new markets (Fernandez et al., 2015). In other words, e-commerce can be defined as the set of digitally enabled business transactions between organizations and individuals. Digitally enabled transactions include all transactions moderated by digital technology. For the most part, this means transactions that occur over the Internet, the Web and/or mobile devices. As mentioned above, commercial transactions involve the exchange of value (e.g., money) across organizational or individual boundaries in exchange for products and services. The exchange of value is important in order to understand the boundaries of e-commerce. Without value exchange, there is no trade (Laudon and Guercio, 2017, pp. 8-9).

Theory of internationalization

The internationalization of a company is a method of geographic expansion, by means of long-term, decisive transformation processes, which gradually modify the company's value chain and organization (Villarreal, 2005). Thus, internationalization is not about exporting occasionally or sporadically. Instead, it seeks to ensure that the company remains in foreign markets for a longer period of time, which will have been achieved through strategies involving the management of technology, offers and resources (Sierralta, 2007).

Models of internationalization

According to the authors Cardozo et al. (2013), there are several approaches to internationalization theories. For the purposes of this research, emphasis will be given to theories oriented to SME internationalization.

Theories oriented to SME internationalization

- **Network theory**

This theory explains the internationalization procedure as an unfolding of a company's social and organizational networks (Cardozo et al., 2013).

Entry into international markets arises from the interactions between the firm and the external network; and the tendency to seize opportunities will be restrained by the quality of the information contributed by each member of the network. The benefits of such information increase with personal experience, since social networks require time to unfold (Ellis, 2000). Johanson and Mattson (1988) argue that the network approach includes dynamism. Firms establish and foster business relationships abroad (Rialp and Rialp, 2001). This unusual fact evolves in the following ways:

1. International outreach: links are created with partners in countries that are new to the internationalized company.

2. Insertion: the previously established commitment is increased.
3. Existing positions in the networks of the various countries are consolidated.

Regardless of the way in which internationalization is carried out, it involves taking advantage of the benefits of networks (Johanson and Vahlne, 1990).

- **Phases, processes and life-cycle approach**

Chen and Huang (2004) suggest four possibilities of how a company could carry out an internationalization process in a coherent manner:

1. Agreements to provide services after the sale is made.
2. Agreements to carry out distribution of its products.
3. Agreements for product development.
4. Agreements to establish distribution channels in local and global markets.

Other researchers point out that the speed of change and growth patterns of successful firms fluctuates in accordance with the initial situation of the firm, the entrepreneurial skills of the managers and the technological commitment of the firm (Park and Bae, 2004). From another point of view, Prasad (1999) asserts that larger proportion firms have a tendency to grow faster than medium-sized firms because of "the law of proportion effect". He further adds that most companies become global in the second phase, while some had to go through all four phases.

- **Strategic approach**

Cardozo et al. (2013) state that the strategic approach is composed of some fundamental activities:

  - **Exports:** Micro firms have used reactive export strategies in contrast to medium-sized firms (Westhead et al., 2002). These results are probably due to the use of competitive models different from those used by exporting firms and because small firms are conditioned by the competitive model they follow to internationalize (Wolf and Pett, 2000).
  - **Joint ventures and strategic alliances:** they could be a method of entry for SMEs with limited knowledge and resources (Kirby and Kaiser, 2003). On their side, small firms can be put in a more flexible position with respect to medium-sized firms in terms of number of internationalization dimensions (Kalantaridis, 2004).

Innovation

Pavón and Hidalgo (1997), define innovation as the set of actions embodied in a period of time and place that lead to the successful insertion in the market, for the first time, of an idea materialized as new or better products, services and management and organizational techniques. Innovation refers to the process of devising something new or unknown starting from a methodical study of some personal, group or organizational need, in order to achieve a goal of an economic nature (Suárez-Mella, 2018).

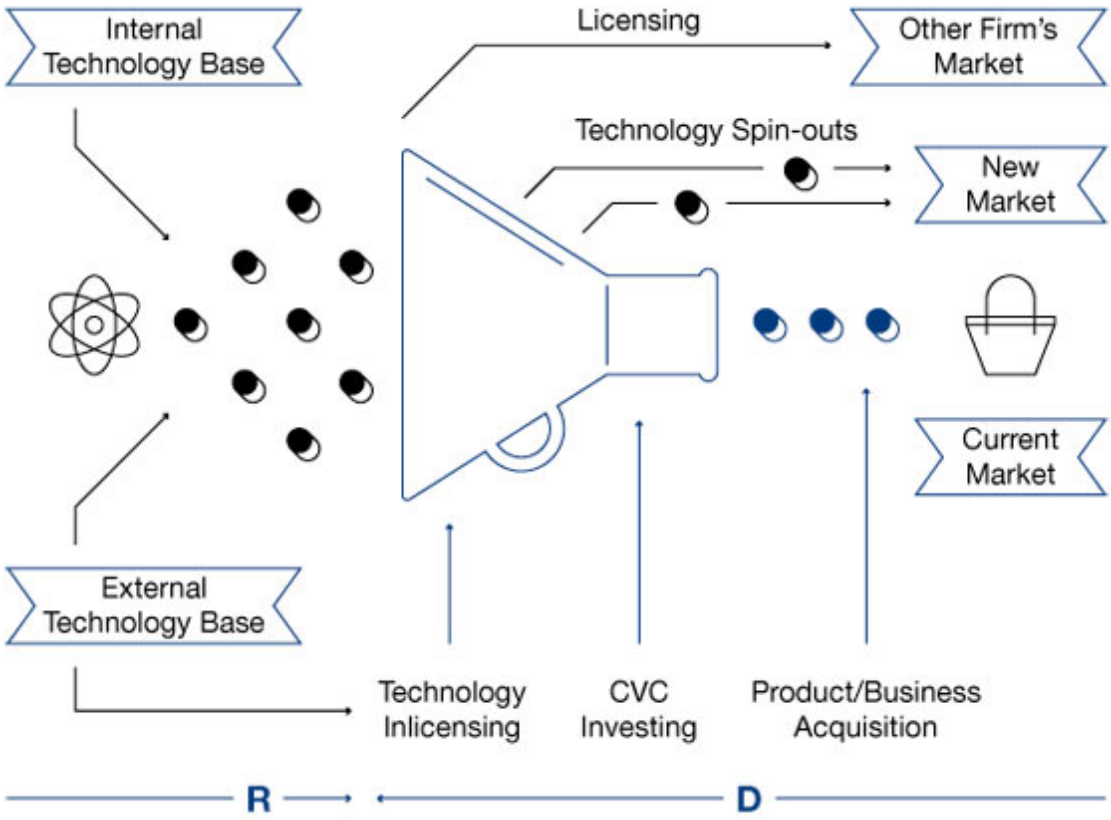
Innovation is a fundamental axis for the viability and competitive capacity of the economy in general terms; of organizations, in addition to being a tactic that aims to ensure compliance with the Sustainable Development Goals (Castellar, 2020).

Open innovation

The concept of open innovation is a reference that assumes that companies should use ideas, knowledge and technology from outside in a collaborative way so that the parties involved obtain mutual benefit (Chesbrough, 2003). In other words, the idea is to explain the concept of open innovation as the use that companies make of knowledge inputs and outputs with the aim of accelerating innovation within the organization and expanding the market and its external use. In this way, it is assumed that companies should use external knowledge as well as internal knowledge to increase value creation and can also make use of the different existing means to access the market (Sanmartín and Rodríguez, 2012).

Figure 1

Open innovation paradigm



From: Chesbrough, 2015, p.10

The open innovation model suggests that the organization should find and include ideas and technologies external to the company, exchange technologies with third parties or knowledge deployed internally and collaborate with one or all the actors of the triple, quadruple or penta helix models (Cabrera-Flores et al., 2020; García-González and Ramírez-Montoya, 2019). Crilly et al. (2020), consider that helix models require the definition of a central stakeholder who is responsible for uniting and coordinating the innovation strengths of both the company itself and the strengths of the other members, so that benefits are obtained for all parties, respecting their autonomy and knowledge management. These strategic alliances of co-creation lead to achieve collaborations on the road to innovation, through which a decrease in costs, risks and an increase in benefits is achieved.

Open Innovation Models

- **InnoCentive Model**

  This open innovation model is characterized by being based on its eponymous virtual platform. It also consists of six steps: finding the obstacles and ideas, setting a challenge, specifying intellectual property agreements, announcing the challenge, evaluating solutions and finally a reward to culminate in the transfer of intellectual property (Adler, 2002).

- **CONNECT + DEVELOP**

  It is the cooperation between several experts from other companies spread all over the world. This model works in both directions: from the inside out and vice versa, and encompasses

a large number of different services such as marketing models, commercial services, design, among others (Rey, 2016).

2. Literature review

According to Payán-Sánchez et al. (2021), open innovation is the name given to the multifaceted research area, recognized as complex due to the strictly dynamic processes as a result of the collaboration involved in gaining access to new knowledge and extra resources.

Innovation has become a determining factor in terms of increasing competitiveness within companies as a result of VUCA environments -Volatility, Uncertainty, Complexity, Ambiguity- which require flexibility and rapid reaction by organizations, in order not to lose competitiveness (Glukhova et al., 2020). Similarly, it is understood that companies often do not have all the substantial resources and knowledge to cope with VUCA environments (Gómez et al., 2021).

Open innovation interweaves external and internal ideas into structures and systems whose requirements are given on the basis of a business model, which leads to better results and also allows taking advantage of competencies that could be provided by external actors, making it possible to make companies' constraints more flexible and allowing them to improve their dynamic and innovation capabilities (Yuan et al., 2018).

Other authors further state that open innovation is about the rapidity of a firm's internal innovation phases through the purposeful use of external knowledge and the output of internal knowledge (Genuchten et al., 2019).

In recent times, open innovation has explored open business models in which the exchange and sources of information proliferate outside the boundaries of the firm (de las Heras-Rosas and Herrera, 2021).

When taking a look at the panorama of possibilities in terms of components participating in open innovation processes, the role of higher education institutions as a driver of knowledge generation is recognized (Zakharov et al., 2020).

Valdez-Juárez and Castillo-Vergara (2020) mention that open innovation produces a holistic start and entrepreneurs immersed in this practice, who decide on the basis of various options and resources, are aware of all the opportunities that could be taken advantage of and how to carry it out effectively, along with the collaboration of external participants. However, there is a notorious opposition to carry out processes with open innovation due to the fear of sharing knowledge that can be plagiarized or filtered by the components that participate, which creates a high entry barrier that reduces interest in developing this type of collaboration (Gómez et al., 2021).

3. Methods

Both qualitative and quantitative methods will be used to carry out this research. The authors Gorschek et al. (2006) point out that successful knowledge and technology transfer requires close collaboration between researchers and practitioners, so that there is a benefit for both parties. From their experience, it is evident that they used a process that involved several correlated steps, which were devised with the help of industry, and, although based on previous transfer models, was adapted in an evolutionary manner, adding steps as necessary as they progressed. This evolution also dictated the process each step should take, depending on the needs of the company as well as the needs of the researchers.

The situational status of BalGran will be established through a literature review with the purpose of undermining BalGran's internal information in order to perform a SWOT analysis of the company.

In order to define the target market and the export process, a literature review will be conducted. The first step is to determine why Peru was selected to carry out the internationalization of BalGran. Within

this review in various articles, it is pertinent to investigate and analyze the Peruvian market for the export of BalGran.

In order to be able to specify the internationalization process, all the information from Ecuador provided by the pertinent institutions will be used to establish every process or requirement for internationalization

.

Through a numerical review, the company's expected sales in the Peruvian market will be projected, in which the company's balance sheets published in the Superintendence of Companies will be analyzed, so that it will be possible to know if the company will have a significant profit margin in terms of its investment to achieve internationalization.

Finally, the model of internationalization with open innovation will be specified, based on the SWOT analysis previously performed to focus on the strategic points of the company to use them, where BalGran will consider accelerating innovation through external knowledge (open innovation), more specifically, through the use of an open innovation portal.

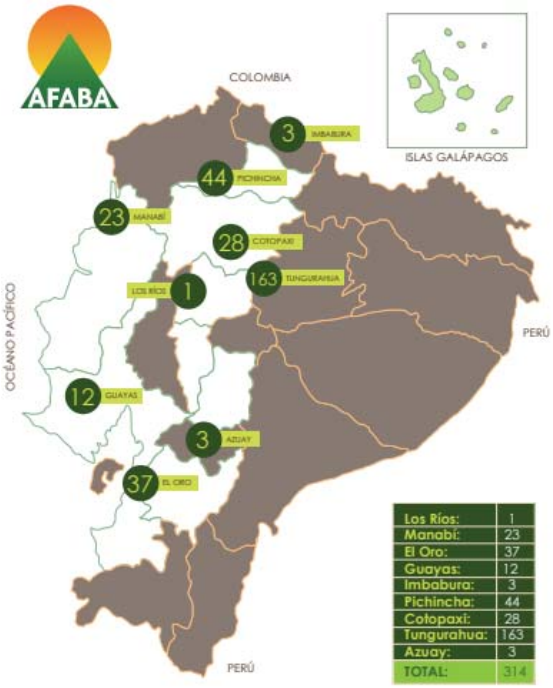
4. Results

Animal food industry in Ecuador

The Asociación Ecuatoriana de Fabricantes de Alimentos Balanceados - AFABA (2014) states that it has a total of 314 members nationwide, with most of them located in the provinces of Tungurahua, Pichincha, and El Oro (Figure 2).

Figure 2

Location of AFABA members nationwide



From: AFABA, 2014

In addition, authors such as Porter (1986), state that there are tools to proceed with the analysis and identification of competitive advantages based on the activities carried out by a company in order to establish links so that the customer obtains the greatest possible amount of value. The food industry has some fundamental elements in its value chain (Figure 3).

Figure 3

Balanced food value chain

From: Badillo, 2011

Description of BalGran Company

BalGran is classified as a C10 industry, which indicates that it belongs to the manufacturing sector. In turn, it is subclassified within industries C1080.02, noting that the company is part of the industries engaged in manufacturing feed for farm animals, for the aquaculture sector, in addition to food supplements, concentrated feed, among others (Rodríguez and Zúñiga, 2018).

Mission

"To design nutritional programs and elaborate balanced food aimed at the full satisfaction of our customers; complying with quality, safety and sustainability standards, providing a stable work environment for our workers" (BalGran, n.d.).

Vision

"To be a leading organization in the production and innovation of balanced food; recognized for the quality and excellence of its products. We aspire for Alimentos Alibalgran Cía. Ltda. to be considered among the most outstanding companies in the market" (BalGran, n.d.).

Table 1

BalGran's product portfolio

Product lines	Presentation
Bovine	10 kg or 40 kg bag
Quail	10 kg or 40 kg bag
Guinea pig and rabbit	10 kg or 40 kg bag
Equine	10 kg or 40 kg bag
Fighting cock	10 kg or 40 kg bag
Broiler	10 kg or 40 kg bag
Laying hen	10 kg or 40 kg bag
Commercial laying hen	10 kg or 40 kg bag
Production swine	10 kg or 40 kg bag
Breeding herd swine	10 kg or 40 kg bag
Pre-starter swine	10 kg or 40 kg bag

From: Rodríguez and Zúñiga, 2018

Table 2

BalGran's SWOT analysis

Strengths	Opportunities

It has professional experts in animal nutrition and feed production. It has a fairly stable organizational structure. It has different product lines for various farm animals according to their needs. It has high quality products, besides having an attractive price. It has the ability to adapt to specific customer requirements and not just mass-produce. Carefully selects its suppliers. Has internal logistics to move both raw materials and finished products. Embraces constant improvement processes. Offers financing after analyzing the credit history of its customers.	Possession of state-of-the-art technology and machinery for possible future investments and subsequent improvement of the production process. Possibility of growth and expansion in the market. Requirement for BalGran's products due to the increase in the animal protein production industry. Ease of obtaining credit for this sector. Existence of motivators to invest in Ecuador. Belongs to the only three members of the Asociación Ecuatoriana de Fabricantes de Alimentos Balanceados in Azuay.
Weaknesses	**Threats**
No raw material or stock of finished products in large quantities. Increased costs in case of failure or damage of imported machinery. Lack of internal control. It does not regularly train its personnel. It does not have a manual of established functions. No efficient portfolio recovery procedures. The production plant has limited infrastructure, which prevents it from complying with Agrocalidad's storage standards. The company's products are not allowed to be marketed in warehouses because they do not have Agrocalidad certification.	Existence of larger and better positioned companies in the market. Smuggling. Instability at the country level: political, economic, social. Shortage of raw materials. The Ministry of Agriculture and Livestock sets the prices of raw materials. If competitors have the necessary capital to enter the food industry, there are no more complex barriers to entry.

From: Rodríguez and Zúñiga, 2018

Table 3

BalGran's production in Tons 2016

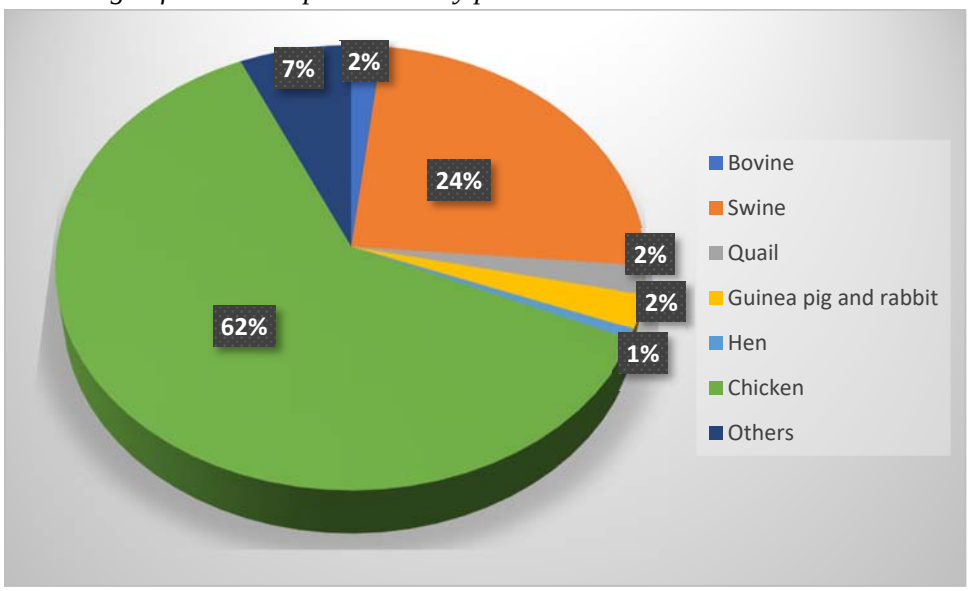
Product lines	Production in Tons
Bovine	144,60
Swine	1.916,48
Quail	162,14
Guinea pig and rabbit	192,64
Hen	55,12
Chicken	4.823,50
Others	523,96

TOTAL	**7.818,44**

From: Rodríguez and Zúñiga, 2018

Figure 4

Percentage of BalGran's production by product line



From: Rodríguez and Zúñiga, 2018

Analysis of the Peruvian market

Ecuador-Peru trade relationship

Ecuador and Peru are two strategic trade partners; they are subscribed to the Cartagena Agreement (in addition to Colombia and Bolivia), which seeks to ensure that trade between members of the Andean Community (CAN) is carried out without obstacles or unilateral measures of a Member Country, thanks to a Program for the Liberation of goods of the Cartagena Agreement - Art.72 and 73 (CAN, 2021).

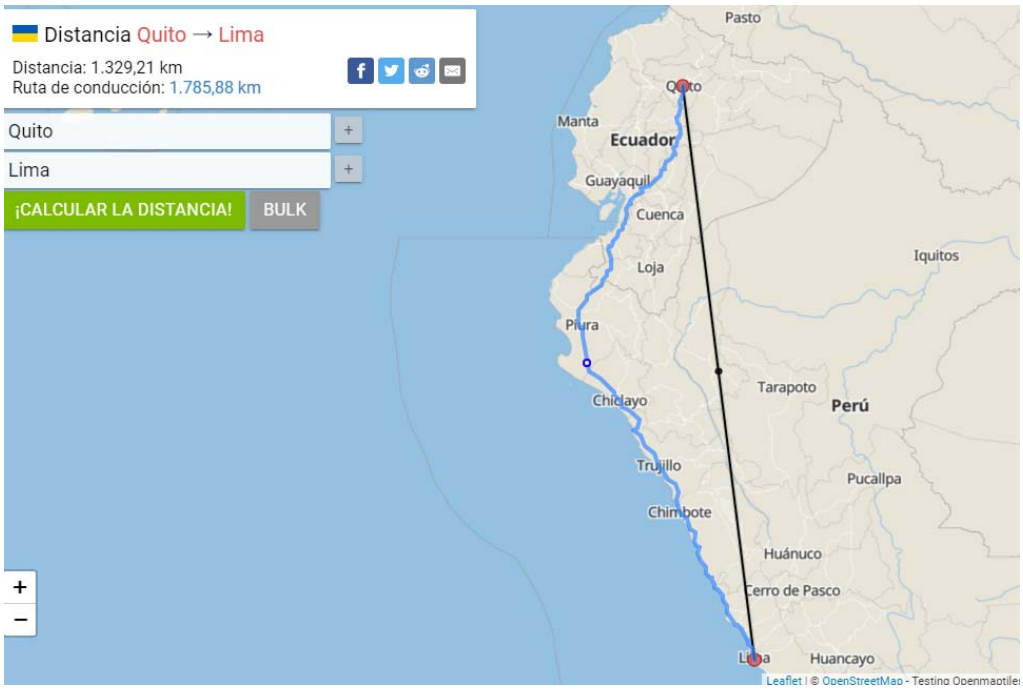
Peru is currently ranked fourth among Ecuador's main partners in the Americas, behind only the United States, Panama and Chile. In the last 10 years, Ecuador has experienced a trade balance surplus with Peru, exporting to the Peruvian market around USD 1.3 billion per year, while imports have been around USD 880 million (Veloz, 2021).

Geographic proximity

Ecuador and Peru are neighboring countries. They border on an area of 1,529 km, covering large areas of the Amazon rainforest, (Plan Binacional, 2018). The distance that exists between the capitals of these countries (Quito and Lima respectively), is 1,329, 21 km and the driving route is 1,785, 88 km (OpenStreetMap, n.d.).

Figure 5

Distance in km between Quito and Lima



From: OpenStreetMap, n.d.

Degree of openness

To calculate the Degree of Openness of a country, López del Paso (2014) mentions that three variables should be used: Exports (X), Imports (M) and Gross Domestic Product (GDP). The three variables are applied to obtain the result as follows:

$$Degree\ of\ Opennes = \frac{(X + M)}{GDP} * 100$$

Table 4

Exports, imports and GDP of Peru for the calculation of the Degree of Openness in the year 2019 (billions of USD)

Variables	**Peru**
Exports	47.982
Imports	42.506
GDP	228.500
Degree of Opennes	**39,60%**

From: World Bank, 2020

The greater the number of exports and imports in a country's production, the greater the degree of openness it will have (López del Paso, 2014). In 2019, Peru obtained a coefficient of openness of the economy of 39.60%.

Business opportunity in the animal food sector

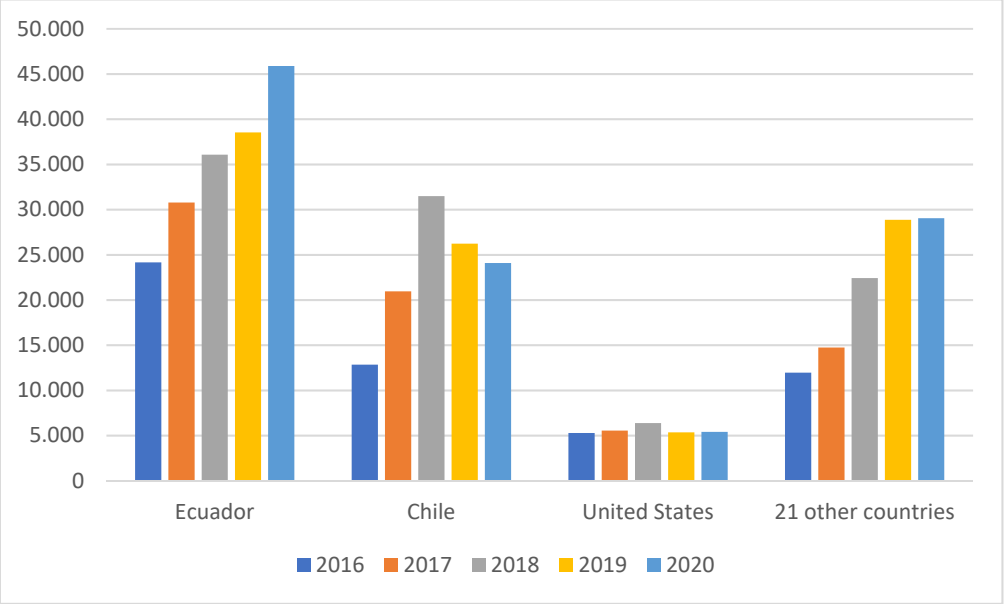
The Peruvian market currently evidences growth in the manufacture of balanced food for farm animals, especially the poultry area, representing about 91%. The swine and fattening cattle sectors are also adding to this growth. The vast poultry corporations have production systems, storage facilities, input plants, feed mixing and packaging. The expansion of the food industry will be related to the development proclivity of the poultry and swine sectors (Ministerio de Desarrollo Agrario y Riego, 2015).

However, according to Trade Map (2020), Peru imported from the world a value of 54,249 USD corresponding to tariff subheading 2309.90.90.00 in 2016; 72,024 USD in 2017; 96,371 USD in 2018; 98,992 USD in 2019 and 104,443 USD in 2020, evidencing an increasing trend.

The three main countries from which Peru imports products with tariff classification 2309.90.90.00 are Ecuador, Chile and the United States, where Ecuador accounts for the largest share of total Peruvian imports since 2016. Thus, in 2016, Ecuador accounted for 44% of total imports. In 2017, 43%; in 2018, 37%; in 2019, 39% and in 2020, 44%. When compared to the other countries, Ecuador leads Peru's imports of balanced food. Even if analyzed together all the other 21 countries ranging from fourth place in exporting to Peru the "preparations of a kind used for animal feeding (exc. dog or cat food, put up for retail sale): Other: The others" in the period 2016 - 2020, do not equal Ecuador's export values, indicating a higher demand and preference for Ecuadorian balanced food.

Figure 6

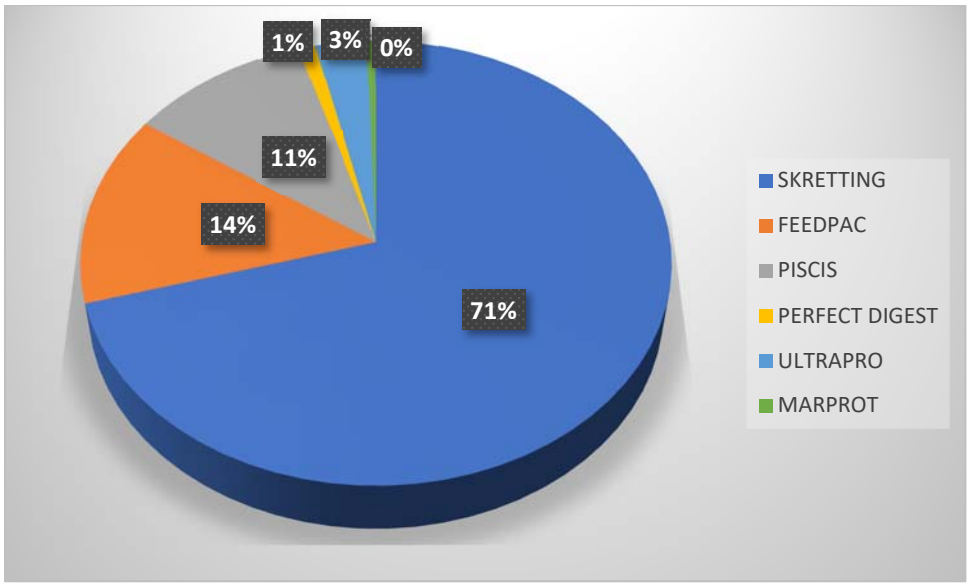
Value imported (thousands USD) by Peru from Ecuador, Chile, United States and 21 other countries 2016 - 2020 subheading 2309.90.90.00



From: Trade Map, 2020

Figure 7

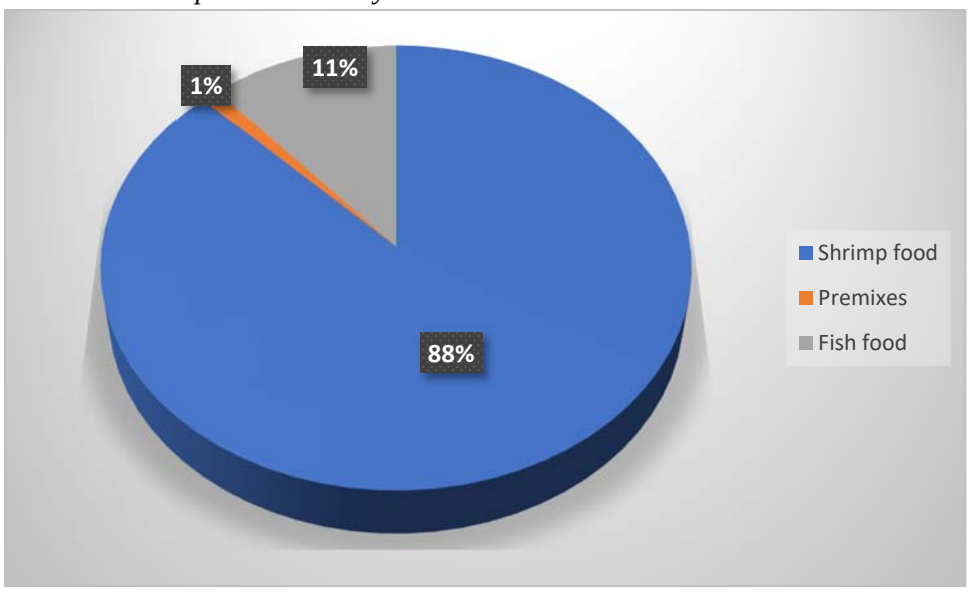
Share percentage of Ecuadorian brands in food exports to Peru year 2021



From: Veritrade, 2021

Figure 8

Product lines exported to Peru year 2021



From: Veritrade, 2021

Internationalization

In order to proceed with internationalization, a direct export will be carried out each month and the two most sold product lines of BalGran will be taken into account: chicken line and pig line. As the company's portfolio is quite broad, it has specialized food for each stage in the life of the animal, which is why only one product from each line will be selected, as these are the ones with the lowest production costs for the company. Freight will be by land, since Ecuador and Peru are countries that border each other, thus reducing costs.

Table 5

Details of monthly export costs of 40kg chicken food bags

Type of container	Standard container 20'

Number of 40kg chicken food bags	750
Unit cost in Ecuador	25,30
Total cost of goods	18975
Freight	900
CFR	19875
Insurance	99,38
CIF	19974,38
Product unit cost + export costs	**25,30**

The result of the calculation is $25.30 per unit. Rodríguez and Zúñiga (2018) indicate that, on average, the gross profit of the company is 8% and the net profit is 1.67%. If a profit of 8% is desired, the unit price of chicken feed would be $26.63.

Table 6

Details of monthly export costs of 40kg pig food bags

Type of container	Standard container 20'
Number of 40kg pig food bags	750
Unit cost in Ecuador	21,9
Total cost of goods	164250
Freight	900
CFR	17325
Insurance	86,63
CIF	17411,63
Product unit cost + export costs	**23,22**

The result of the calculation is $23.22 per unit. Similarly, Rodríguez and Zúñiga (2018) indicate that, on average, the gross profit of the company is 8% and the net profit is 1.67%. If a profit of 8% is desired, the unit price of pork feed would remain at $25.08.

Now, using the unit prices of each product, the purpose of the following calculation is to determine the sales projections in the Peruvian market first for 1 year, taking into account that Balgran obtained net sales in the year 2021 for a value of $6'687,288.67 to use that value as a reference for each month and thus obtain the profit margin with exports included (Figure 7).

Figure 7

Projected sales and profit based on prices obtained in tables 5 and 6 for 1 year

ventas netas	557582,92	557582,92	557582,92	557582,92	557582,92	557582,92	557582,92	557582,92	557582,92	557582,92	557582,92	557582,92	557582,92
costos y gastos	550484,88	550484,88	550484,88	550484,88	550484,88	550484,88	550484,88	550484,88	550484,88	550484,88	550484,88	550484,88	550484,88
ingresos por exp.	-	38782,5	38782,5	38782,5	38782,5	38782,5	38782,5	38782,5	38782,5	38782,5	38782,5	38782,5	38782,5
costos y gastos exp.	-	36390	36390	36390	36390	36390	36390	36390	36390	36390	36390	36390	36390
utilidad neta	7098,04	9490,54	9490,54	9490,54	9490,54	9490,54	9490,54	9490,54	9490,54	9490,54	9490,54	9490,54	9490,54
% de utilidad	1,27%	1,70%	1,70%	1,70%	1,70%	1,70%	1,70%	1,70%	1,70%	1,70%	1,70%	1,70%	1,70%

The total value of export revenues is $465,390; the total value of export costs and expenses is $436,680; the export profit was $28,710.

Table 7

Calculation of the Return on Investment (ROI)

	Year 1
Income generated	465390
Realized investment	436680
Profit	28710
Profit in %	6,17%
ROI	**6,57%**

Based on the above assumptions, the Return on Investment (ROI) at the end of one year of exports was 6.57%.

Other market reality scenarios

Taking into account that in reality chicken and pork food in Peru is not demanded from abroad (Ecuador), but that the Peruvian market is self-sufficient internally, it would be expected to sell in Peru 3% of what is sold in Ecuador (tables 8 and 9). First, BalGran's net sales in the year 2021 (6'687,288.67 USD) were taken again to use this value as a reference. As shown above (Figure 4), and given that historical data show that trends tend to hold, of the company's total sales, poultry feed represents 62% (4'148,416.88 USD) and pork feed represents 24% (1'604,949.28).

Table 8

Expected sales (USD) of chicken food in Peru in the first three years, compared to BalGran's sales in 2021

Markets	**Reference year (2021)**	**Year 1**	**Year 2**	**Year 3**
Ecuador	4’148.416,88			
Peru		124.452,51	128.186,08	132.031,66

Table 9

Expected sales (USD) of swine food in Peru in the first three years, compared to BalGran's sales in 2021

Markets	**Reference year (2021)**	**Year 1**	**Year 2**	**Year 3**
Ecuador	1’605.838,79			
Peru		48.175,16	49.620,42	51.109,03

Based on the calculations previously made (Table 7), export costs represented 93.83% of the income obtained from exports. We will proceed to calculate the ROI again with the estimated values for sales of balanced feed for chickens and pigs, taking into account this time the low demand for the product and the costs of the risks involved (Table 10).

Table 10

Calculation of the Return on Investment (ROI) with a 3-year projection of expected sales in the Peruvian market taking into account other factors

	Year 1	Year 2	Year 3
Income generated	172.627,67	177788,5	183140,69
Realized investment	163996,29	167121,19	171236,55
Profit	8.631,38	10667,31	11904,14
ROI	**5,26%**	**6,38%**	**6,95%**

Table 10 shows that the ROI, although increasing in subsequent years, is not a percentage that is feasible for the company. Due to the low demand for chicken and pork food, due to the exchange rate from US dollars to soles and, in general, BalGran's lack of knowledge of foreign markets, the only way to achieve profits in Peru through direct exports would be in the long term and with the experience and risks of suffering large losses in the first years.

As a possible solution to the problems that BalGran could face when trying to internationalize its products, we propose the implementation of open innovation through collaborative contracts such as Joint Venture or through open innovation platforms, based on the analysis of both the company and the Peruvian market.

Applying Open Innovation

The vast majority of SMEs lack a vision that includes open innovation, on the contrary, these companies have the perception that highly skilled outsiders with various ideas and solutions are a threat, when in fact they are a potential opportunity capable of exponentially accelerating the innovation process (Palacio and Gaviria, 2016).

BalGran offers a wide range of products (Table 1) highly demanded in the domestic market. As of 2016, a study conducted by Rodríguez and Zúñiga (2018), shows that the demand for BalGran Company was around 3 metric tons per hour. However, research conducted on the target market (Peru) in the present study concludes that the same products cannot be competitive in such market due to several factors. Among those factors there are the developed manufacturing industry of such balanced food lines that exist in that country, the little or almost non-existent demand for imported balanced feed for poultry, swine and cattle thanks to the capacity of the Peruvian market to self-supply and the currency.

Usually, SMEs do not have the capacity or the means to carry out the entire innovation process; therefore, they have the need to open up to external sources to achieve innovation, as well as to achieve internationalization strategies (Vrontis et al., 2017). In this way, and taking into account that shrimp food, unlike food for poultry, swine and cattle, has a high demand for imports (Figure 8), it is intended to propose the use of external knowledge so that BalGran can expand its product offering, in addition to achieving internationalization towards new markets apparently not feasible at first sight.

Ecuador is referred to as one of the main efficient producers of shrimp feed, which has attracted several foreign investors, making great advances in terms of quality and nutritional value. Within the first three months of 2022, 530,000 tons of balanced shrimp feed were produced in Ecuador. The previous year, 861,800 tons were exported (Gómez, 2022).

Proposed solution

Having analyzed the most important factors prior to the exit to foreign markets by BalGran Cía. Ltda., the most feasible internationalization model to carry out is the Joint Venture, which adapts and allows in a clear way the implementation of the open innovation proposed in this study.

On the one hand, in accordance with the United Nations Conference on Trade and Development (UNCTAD), the Joint Venture is established by means of a contract, which implies that the parties involved have provided resources, that they have control of the activities in a divided manner and that neither one nor the other party may have total control (UNCTAD, 2010). It is considered as a direct risk-sharing investment, since the entire internationalization procedure is not handled. In addition, the time required for this business tactic will depend on the amount of time that the companies use to reach agreement on administrative, commercial, operational, accounting and financial issues, among others (Peris-Ortiz et al., 2013).

Table 11

Aspects to negotiate in Joint Venture contracts

• Establishment of which party is in charge of products, market analysis, customers, etc
• Capital contributions of each party
• Machinery, facilities, patents, trademarks, intellectual property, assets contributed
• Composition of administrative bodies
• Decision making methods and systems
• Delimitation of management positions
• Business control

From: García, 2015

It would be convenient for BalGran to enter into this type of alliance with national or international companies specialized in the production of shrimp feed, which is the most demanded feed imported from Ecuador in Peru. With the implementation of a Joint Venture contract, BalGran Company will be able to enter the Peruvian market with a company that already has experience in that market, has knowledge of product demand, negotiation skills, and is familiar with all the processes and regulations for exporting.

On the other hand, regarding open innovation and its relationship with the internationalization of SMEs, Bell and Loane (2010), claim in two of their researches that there is a fruitful relationship between internet, open innovation, other companies and customers; thus, accelerating the internationalization process of SMEs.

Various platforms supported by external knowledge enable intervention or collaboration of people from all over the world, where they compete by offering ideas and solving problems of globally relevant companies. Challenges range from social to scientific and technical perspectives, managing to change economic setbacks through the rapid arrival of solutions and the development of open innovation programs (Palacio and Gaviria, 2016).

The emergence, evolution and progress of ICTs have given rise to a large number of web portals that make possible the intercommunication between different actors, in turn, located in different places, allowing the exchange of information. They have even, on several occasions, contributed to the creation of new processes and products through the exchange of knowledge, thus demonstrating that these portals are a crucial means to develop collaborative and open innovation processes (Becker and Eube, 2018).

Alluding to the aforementioned web portals, Palacios et al. (2020) identified four open innovation portals pigeonholed in the 'commercial' category, which were specially formulated to target the management of technology transfer between companies in the productive area (Table 12).

Table 12

Open innovation portals for SMEs in the productive sector

Sector	Name	URL address
Productive sector	InnoCentive	https://www.innocentive.com/about-us/
Productive sector	Yet2	https://www.yet2.com
Productive sector	Innoget	https://www.innoget.com
Productive sector	Nine Sigma	https://www.ninesigma.com

From: Palacios et al., 2020

In turn, these portals were subject to four classification criteria in terms of their functions according to Palacios et al. (2020):

1. Diffusion of information on innovation
2. Training in innovation processes
3. Dissemination of calls for proposals
4. Administration of projects and/or calls for proposals

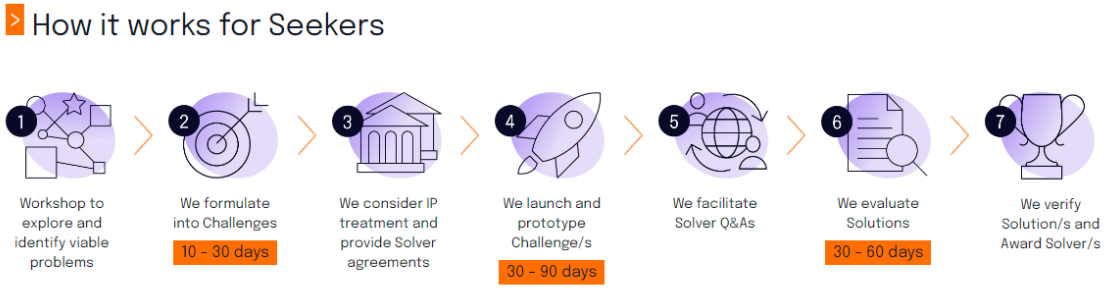
Once the classification was done, the authors observed that InnoCentive, Yet2 and Nine Sigma are platforms that offer training on innovation processes and also offer dissemination of calls for proposals. However, Innoget offers dissemination of information on innovation and training on innovation processes (Palacios et al., 2020).

After a review of open innovation portals, it was concluded that the most suitable option for BalGran is InnoCentive, thanks to its track record of around 80% success rate; a return-on-investment rate of 182% in less than two months; open innovation methods ten times cheaper and four times faster than traditional methods; portal preferred by well-known companies such as NASA, AztraZeneca, among others (InnoCentive, 2022).

InnoCentive (2022) works with different steps to follow in its platform and with two modalities. One modality is being part of the 'seekers' (those who seek solutions in open innovation for their problems) and the other, being part of the 'solvers' (those who offer solutions with open innovation) (Figures 9 and 10).

Figure 9

Steps to follow for Seekers



From: InnoCentive, 2022

Figure 10

Steps to follow for Solvers

From: InnoCentive, 2022

5. Discussion and conclusions

Within the analysis made to BalGran Cía. Ltda. and the balanced feed sector, regarding the internationalization process of this kind of food, it is crucial that the company has the Good Manufacturing Practices Certification granted by the relevant authority (Agrocalidad). This registration is mandatory to detail the ingredients and composition (Agrocalidad, 2017). Fortunately, researchers Rodríguez and Zúñiga (2018), assured that BalGran is working towards achieving certification as soon as possible.

Thanks to the information obtained, a fairly robust Peruvian feed producing industry was identified, with practically no need for (foreign) prepared feed products for farm animals. However, the records showed a high demand for shrimp feed, specifically coming from the Sketting brand, which, according to author Crespo-Choez (2018), achieved its internationalization to Peru thanks to strategic alliances with similar international brands, thus demonstrating that BalGran can achieve the same through Joint Venture contracts. BalGran does not currently have this type of aquaculture feed in its portfolio, but allied with companies that are specialized in manufacturing balanced shrimp feed and know the Peruvian market, it will be able to accelerate the internationalization process.

It was also noted that BalGran is an SME that has reached a considerable size and, in agreement with Van de Vrande et al. (2009), could be more apt to adopt innovation processes and engage in activities involving riskier investments with external participants in order to reach other markets.

In addition, the geographic proximity between Ecuador and Peru, as well as the Cartagena Agreement, are determining factors when it comes to trade transactions. In the case of BalGran, this market could be highly beneficial, since the company has its own infrastructure, internal logistics, capital, and transportation. Since Peru is a neighboring country, transportation costs are lower and the products can be shipped by land, using the company's own transportation logistics resources. However, it should be emphasized that this benefit would be achieved only with the application of external knowledge, which can be obtained through online platforms of open innovation for SMEs, where the different types of problems that a company may have can be postulated, in this case: the company currently could not be competitive in Peru with its product portfolio, the current exchange rate and the lack of knowledge of internationalization processes. Online open innovation platforms have thousands of experts, researchers and entrepreneurs willing to solve these problems by proposing solutions and alliances, obtaining a mutual benefit.

Finally, it can be concluded that as long as BalGran does not obtain the certificate of Good Manufacturing Practices; and as long as it does not expand and adapt its portfolio to the needs of the target market (Peru), it would not achieve a successful internationalization because the sales that would be had there would not justify the costs of production and logistics of exit in the short term. In addition, the profit margin obtained in the long term, based on the projections made, would be very low. The solution to this dilemma is given by open innovation, a tool that will allow BalGran to take advantage of its current

structure, and hand in hand with strategic partners, offer products that are in demand in the Peruvian market, making this market that was not favorable at first sight, quite beneficial for the company in the future, strengthening commercial ties with other similar companies, acquiring the so-called know-how of foreign markets and finally, fulfilling the vision of BalGran in terms of innovation and eminence.

6. References

Adler, K. (2002). Social Capital: prospect for a new concept. Academy of Management review

AFABA. (2014). Asociación Ecuatoriana de Fabricantes de Alimentos Balanceados. Obtenido de http://www.afaba.org/Repositorio/entorno/Entorno%20a%20Nivel%20Nacional%20-%202014.pdf

Arancel Integrado. (s.f.). Arancel Integrado. Obtenido de http://www.aduanet.gob.pe/servlet/AIScrollini?partida=2309909000

Badillo, T. (2011). El sistema de agro negocios de los alimentos balanceados. Principales conflictos en la cadena productiva. Departamento Nacional de PlaneaciónColombia, Análisis de cadenas productivas: Alimentos concentrados o balanceados: http://www.dnp.gov.co/Portals/0/archivos/documentos/DDE/Concentrados.pdf

BalGran. (s.f.). BALGRAN Alibalgran Cía. Ltda. Obtenido de https://balgran.webs.com/

BCE. (2019). Banco Central del Ecuador. Obtenido de https://contenido.bce.fin.ec/documentos/PublicacionesNotas/BOLETIN312019.pdf

Becker, B. and Eube, C. (2018). "Open innovation concept: integrating universities and business in digital age," Journal of Open Innovation: Technology, Market, and Complexity, vol. 4, p. 12.

Bell, J. and Loane, S. (2010). 'New-wave' global firms: Web 2.0 and SME internationalization. Journal of Marketing Management, 26(3-4), 213-229.

Bustillo, R. (2001). *Comercio exterior Materia y ejercicios.* País Vasco: Servicio Editorial de la Universidad del País Vasco.

Cabrera-Flores, M., López-Leyva, J., Peris-Ortiz, M., Orozco-Moreno, A., Francisco-Sánchez, J., and Meza-Arballo, O. (2020). A framework of penta-helix model to improve the sustainable competitiveness of the wine industry in Baja California based on innovative natural resource management. *E3S Web of Conferences*, 167, 06005. DOI: https://doi.org/https://doi.org/10.1051/e3sconf/202016706005

CAN. (2021). Comunidad Andina. Obtenido de https://www.comunidadandina.org/temas/dg1/gravamenes-y-restricciones/

Cardozo, P. P., Chavarro, A. and Ramírez, C. (2013). Teorías de internacionalización. *Panorama*.

Castellar, E. (2020). Una mirada al estado de la educación superior con relación a los Objetivos de Desarrollo Sostenible. *Educación Superior y Sociedad*, 32(2), 15-35. Recuperado de https://bit.ly/3gVcp7f

Chen, H. and Huang, Y. (2004). "The establishment of global marketing strategic alliances by small and medium enterprises". Small Business Economics. Vol. 22.

Chesbrough, H. (2003). *Open innovation: the new imperative for creating and profiting from technology*. Boston: Harvard Business Press. Recuperado de https://n9.cl/3kdv

Chesbrough, H. (2015). Innovación abierta. Innovar con éxito en el siglo xxi. Open mind, BBVA. Disponible en https://www.bbvaopenmind.com/articulo/innovacion-abierta-innovar-con-exitoen-el-siglo-xxi/?fullscreen=true

Crespo-Choez, A. (2018). *Diagnóstico de la cadena de valor: División Alimentos Balanceados en la Provincia del Guayas. Periodo 2013 - 2017* [Trabajo de graduación previo a la obtención del título de Economista, Universidad de Guayaquil]. Repositorio Institucional Dspace. http://repositorio.ug.edu.ec/bitstream/redug/34107/1/CRESPO%20CHOEZ.pdf

Crilly, M., Vemury, C. M., Humphrey, R., Rodríguez, S., Crosbie, T., Johnson, K., Wilson, A., and Heidrich, O. (2020). Common language of sustainability for built environment professionals. The quintuple helix model for higher education. *Energies*, 13(22), 5860. DOI: https://doi.org/10.3390/en13225860

de las Heras-Rosas, C., and Herrera, J. (2021). Research trends in open innovation and the role of the university. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(1), 29. DOI: https://doi.org/10.3390/joitmc7010029

Durán, J. (2016). Indicadores de comercio exterior y política comercial: generalidades metodológicas e indicadores básicos. *CEPAL – Colección Documentos de proyectos*.

Ellis, P. (2000). Social ties and foreign market entry. Journal of International Business Studies. Vol. 3 (3).

Fernández, A., Sánchez, M. C., Jiménez, H. V. and Hernández, R. (2015). La importancia de la Innovación en el Comercio Electrónico. *Universia Business Review*.

García, O. (2015). Global Marketing. Obtenido de http://www.aglutinaeditores.com/media/resources/public/6f/6fb4/6fb463e1748

Genuchten, E., Calderón-González, A., and Mulder, I. (2019). Open innovation strategies for sustainable urban living. *Sustainability*, 11(12), 3310. DOI: https://doi.org/https://doi.org/10.3390/su11123310

Glukhova, L. V., Sherstobitova, A. A., Korneeva, E. N., and Krayneva, R. K. (2020). VUCA-managers training for smart systems: innovative and organizational approach. En V. Uskov; R. Howlett; L. C. Jain (Eds.) *Smart education and e-learning 2020*. (361-370). Singapur: Springer. DOI: https://doi.org/10.1007/978-981-15-5584-8_31

Gómez-Cristancho, M. A., Romero-Albarracín, L. S. and Palacios-Osma, J. I. (2021). Caracterización de las prácticas de innovación abierta en las pymes manufactureras en Bogotá. *Revista Escuela de Administración de Negocios*, (90), 27-46. DOI: https://doi.org/10.21158/01208160.n90.2021.2931

Gómez, J. C. (april 26th, 2022). Actores Productivos. Obtenido de https://actoresproductivos.com/2022/04/26/exportacion-de-camaron-puso-a-crecer-a-la-industria-ecuatoriana-de-alimentos-balanceados/

González, R. (2011). Diferentes teorías del comercio internacional. *Tendencias y nuevos desarrollos de la teoría económica.*

Gorschek, T., Garre, P., Larsson, S., and Wohlin, C. (2006). A Model for Technology Transfer in Practice. IEEE Software, Issue November/December, 88-95.

InnoCentive. (2022). InnoCentive. Obtained from https://www.innocentive.com/es/resources/how-open-innovation-works/

Johanson, J., and Vahlne, J. (1990). "The mechanism of internationalization". International Marketing Review. Londres: Vol. 7 (4).

Johanson, J., and Mattson, L. (1988). "Internationalization in industrial systems. A network approach". En: Hood, N. y J., Valhne. Strategies in global competition. Londres: Croom Helm.

Jurado, P. (2018). Comercio electrónico en Ecuador. *Observatorio de la economía Latinoamericana.*

Kalantaridis, C. (2004). "Internationalization, Strategic Behavior; and the Small Firm: A comparative investigation". Journal of Small Business Management. Vol. 43 (3).

Kirby, D., and Kaiser, S. (2003). "Joint ventures as an internationalization strategy for SME's". Small Business Economics. Vol. 21.

Lafuente, F. (2010). *Aspectos del comercio exterior.* Eumed. net.

Laudon, K., and Guercio, C. (2017). *E-commerce business, technology, society.* Nueva York: Pearson Education, Inc.

López del Paso, R. (2014). Medición del grado de apertura de una economía. (I.E. Económico, Ed.) eXtoikos (14), 87-88.

Madsen, T., and Servais, P. (1997). "The internationalization of Born Globals: An evolutionary process". International Business Review. Vol. 6 (6).

Ministerio de Desarrollo Agrario y Riego. (2015). Ministerio de Desarrollo Agrario y Riego Perú. Obtenido de Ministerio de Desarrollo Agrario y Riego Perú: https://www.midagri.gob.pe/portal/40-sector-agrario/situacion-de-las-actividades-de-crianza-y-producci/307-alimentos-balanceados

OpenStreetMap. (n.d.). Obtained from https://es.distance.to/Quito/Lima

Palacio, C. and Gaviria, P. A. (2016). Modelos de Innovación Abierta, una revisión bibliográfica con enfoque a las PYME. International Journal of Information Systems and Software Engineering for Big Companies (IJISEBC), 3(2), 19-39. (www.ijisebc.com)

Palacios, J., García, E., and Morales, A. (2020). Modelo de Portal para Innovación Abierta. 15th Iberian Conference on Information Systems and Technologies (CISTI).

Park, S. and Bae, Z. (2004). "New venture strategies in a developing country: Identifying a typology and examining growth patterns through case studies". Journal of Business Venturing, Vol.19.

Pavón, J. and Hidalgo, A. (1997). Gestión e innovación. Un enfoque estratégico. Madrid.

Payán-Sánchez, B., Belmonte-Ureña, L., Plaza-Úbeda, J., Vazquez-Brust, D., Yakovleva, N., and Pérez-Valls, M. (2021). Open innovation for sustainability or not: literature reviews of global research trends. *Sustainability*, 13(3), 1136. DOI: https://doi.org/https://doi.org/10.3390/su13031136

Peris-Ortiz, M., Rueda-Armengot, C. and Benito-Osorio, D. (2013). Internacionalización: Métodos de entrada en mercados exteriores. España.

Plan Binacional de Desarrollo de la Región Fronteriza Perú - Ecuador. (2018). La Región Fronteriza. Obtained from https://planbinacional.org.pe/la-region-fronteriza/#:~:text=El%20Per%C3%BA%20comparte%20con%20el,una%20gran%20riqueza%20socio%2Dcultural.

Porter, M. (1986). Ventaja Competitiva. Editorial C.E.C.S.A. México.

Prasad, S. (1999). Globalization of smaller firms field notes on processes. Small Business Economics. Vol. 13.

Rialp, A. and Rialp, J. (2001). Conceptual frameworks on SME's internationalization: past, present and future trends of research. En: Axxim. C.N. y Matthyssens, P. Ressessing the internatonalization of the firm, advances in international marketing. Amsterdam: JAI/Elserver Inc.

Rey, A. (2016). Plataforma de innovación abierta basado en un análisis de herramientas web: propuesta del modelo y aplicación en un contexto universitario

Rodríguez, M. L. and Zúñiga, E. (2018). *Análisis de un proyecto de expansión de la planta de producción de Balgran Cía. Ltda. posterior a un diagnóstico de su situación actual* [Trabajo de graduación previo a la obtención del título de Ingeniero Comercial, Universidad del Azuay]. Repositorio Institucional Dspace. https://dspace.uazuay.edu.ec/handle/datos/7621

Salazar, A., Paucar, L. and Borja, Y. (2017). El marketing digital y su influencia en la administración empresarial. *Revista Científica Dominio de las Ciencias*, 1161-1171.

Sanmartín, N. and Rodríguez, A. (2012). Un marco conceptual para los procesos de innovación abierta: integración, difusión y cooperación en el conocimiento. *TELOS. Revista de Estudios Interdisciplinarios en Ciencias Sociales*, 83-101.

Sierralta, A. (2007). *Internacionalización de las empresas Latinoamericanas.* Lima: Fondo Editorial de la Pontificia Universidad Católica del Perú.

SRI. (2012). Obtenido de https://www.sri.gob.ec

Suárez-Mella, R. (2018). Reflexiones sobre el concepto de innovación. *Revista San Gregorio*, 120-131.

Trade Map. (2020). Trade Map. Obtained from https://www.trademap.org/Country_SelProductCountry_TS.aspx?nvpm=3%7c604%7c%7c%7c%7c2309909000%7c%7c%7c8%7c1%7c1%7c1%7c2%7c1%7c2%7c1%7c1%7c1

UNCTAD. (2010).United Nations Conference on Trade and Development. Obtenido de: https://unctad.org/system/files/official-document/tdrbpconf7L3_en.pdf

Valdez-Juárez, L. E., and Castillo-Vergara, M. (2020). Technological capabilities, open innovation, and eco-innovation: dynamic capabilities to increase corporate performance of SMEs. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(1), 8. DOI: https://doi.org/https://doi.org/10.3390/joitmc7010008

Van de Vrande, V., De Jong, J. P., Vanhaverbeke, W. and De Rochemont, M., (2009). Open innovation in SMEs: Trends, motives and management challenges. Technovation, 29(6), 423-437. https://doi.org/10.1016/j.technovation.2008.10.001

Veloz, A. (august 22nd, 2021). Revista Gestión. Obtenido de https://www.revistagestion.ec/economia-y-finanzas-analisis/hacia-donde-camina-la-relacion-comercial-ecuador-peru#:~:text=Actualmente%2C%20Per%C3%BA%20es%20el%20cuarto,las%20importaciones%20equivalen%20al%206%25.

Villarreal-Larrinaga, Oskar. (2005). La internacionalización de la empresa y la empresa multinacional: una revisión conceptual contemporánea. Cuadernos de Gestión, 5(2),55-73. [fecha de consulta 21 de abril de 2022]. ISSN: 1131-6837. Disponible en: https://www.redalyc.org/articulo.oa?id=274320875003

Vrontis, D., Thrassou, A., Santoro, G. and Papa, A. (2017). Ambidexterity, external knowledge and performance in knowledge-intensive firms. The Journal of Technology Transfer, 42(2), 374-388. https://doi.org/10.1007/s10961-016-9502-7

Westhead, P., Wright, M., and Ucbasaran, D. (2002). "International market selection strategies selected by "micro" and "small" firms". International Journal of Management Science. Vol. 30.

Wolff, J., and Pett, T. (2000). Internationalization of small firms: An examination of exports patterns, firm size and export performance. Journal of Small Business Management. Vol. 38 (2).

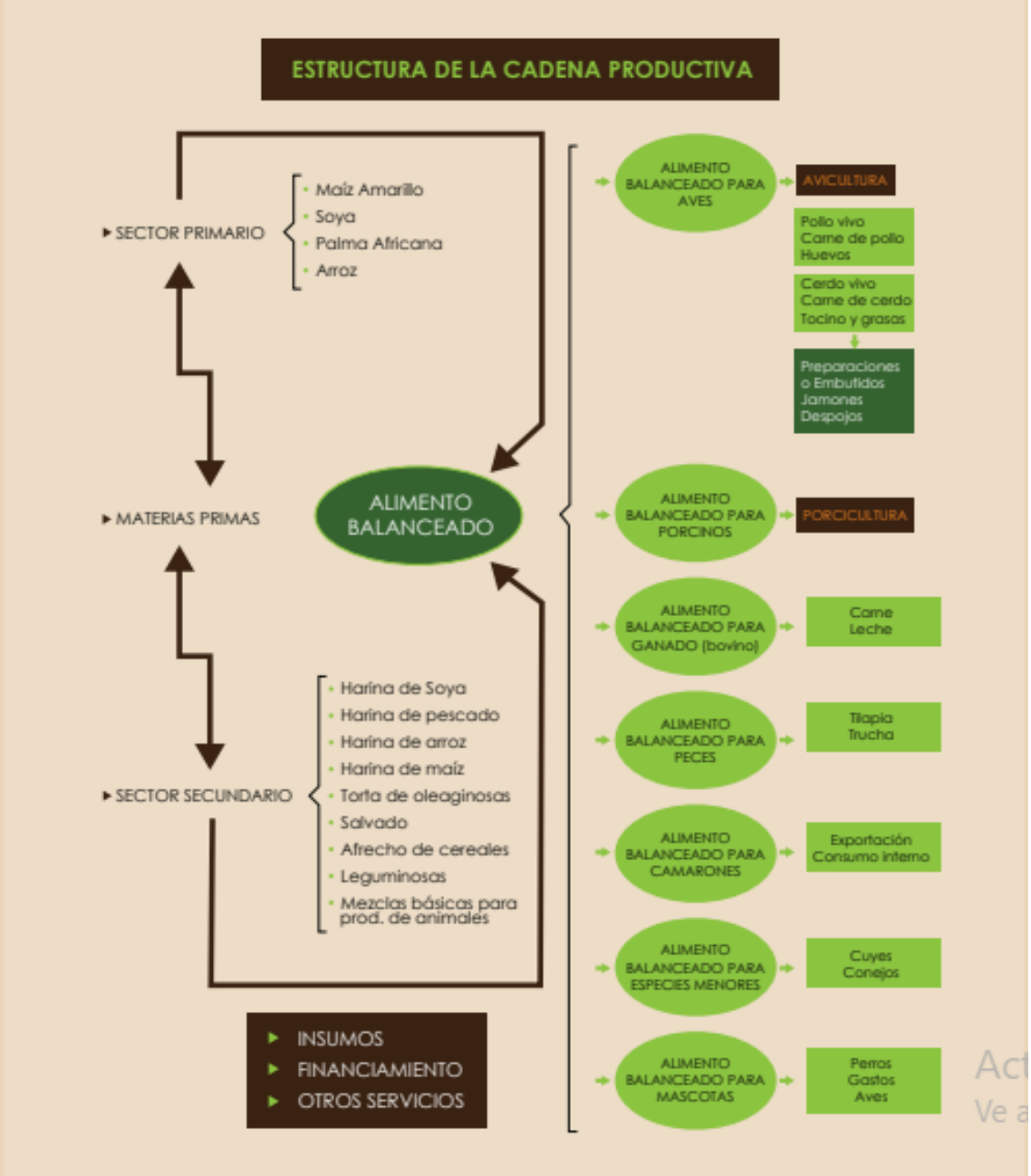
Yuan, C. H., Li, Y., Vlas, C. O., and Peng, M. W. (2018). Dynamic capabilities, subnational environment, and university technology transfer. *Strategic Organization*, 16(1), 35-60. DOI: https://doi.org/https://doi.org/10.1177/1476127016667969

Zakharov, P. N., Posazhennikov, A. A., and Zakharova, Z. A. (2020). Open innovations as a tool of interaction between universities and business structures in the digital economy. En E. G. Popkova; B. Sergi (Eds.) *Lecture Notes in Networks and Systems*. (Vol. 87, 301-306). DOI: https://doi.org/10.1007/978-3-030-29586-8_35

7. Annexes

Annex 1

Balanced food production chain



From: AFABA, 2014

Annex 2

Tax measures for goods of subheading 2309.90.90.00 established for entry into Peru

TIPO DE PRODUCTO:	DS.382-2021-EF-DS.371-2017-EF-DS.103-2015-EF 01.05.15-LEY 29666-IGV 20.02.11

Gravámenes Vigentes	Valor
Ad / Valorem	0%
Impuesto Selectivo al Consumo	0%
Impuesto General a las Ventas	16%
Impuesto de Promoción Municipal	2%
Derecho Especificos	S
Derecho Antidumping	N.A.
Seguro	1.25%
Sobretasa	0%
Unidad de Medida:	KG

From: Arancel Integrado, s.f.