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INTERNATIONALIZATION OF SERVICE COMPANIES: STRATEGIC PLAN TO CREATE A SUBSIDIARY COMPANY FOR RIVERMINDS CIA LTDA.

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Dedication

This article is dedicated to:

- To my family who have always believed in me.
- To my colleagues and friends who have given me the best years of my life.
- To Milita who inspires me to better every day and fulfill my dreams.
- To Juanfran, my best friend and life partner.

Acknowledgment

I will always be completely grateful to Maria Ines, my director and teacher, who met me as an inexpert and shy teenager; and today have helped me to grow and a become a full graduate woman.

I thank my teachers, Melita y Damiano, who not only shared knowledge with me, but also taught me about life.

Internationalization of service companies: strategic plan to create a subsidiary company for Riverminds CIA Ltda.

Abstract

The commercialization of services currently represents one of the most important foreign trade sectors. Among the fastest developing services are those related to information and communication technologies. This research analyzes the possibility of the Ecuadorian company Riverminds CIA Ltda internationalizing through creating a subsidiary company in the United States. An adapted "Business Model Canvas" has been applied for this research, presented in four phases: evaluation, transformation, launch, and innovation. The results established that the company overcomes the main obstacles of lack of trained human resources and access to financing in both Ecuadorian and Latin American territory scenarios. Based on the proposed model, it was concluded that the company Riverminds CIA Ltda could establish its subsidiary Riverminds LLC in the United States.

Resumen

La comercialización de servicios representa uno de los sectores más importantes del comercio exterior en la actualidad. Entre los servicios de más rápido desarrollo se encuentran los relacionados con las tecnologías de información y comunicación. En la presente investigación se analiza la posibilidad de la empresa ecuatoriana Riverminds CIA Ltda. de internacionalizarse a través de la creación de una empresa subsidiaria en Estados Unidos. Para esta investigación se ha aplicado un modelo adaptado del "Business Model Canvas" presentado en cuatro fases: evaluación, transformación, lanzamiento e innovación. Los resultados establecen que la empresa supera los principales obstáculos de falta de recursos humanos capacitados y acceso a financiamiento planteados en escenarios tanto en el territorio ecuatoriano como latinoamericano. Se concluye que la empresa Riverminds CIA Ltda. posee capacidad para establecer su subsidiaria Riverminds LLC en Estados Unidos con base en el modelo planteado.

Key Words

· Internationalization, services, ICTs, software, model

1. Introduction

With globalization and the advancement of technology, foreign trade is increasingly represented by the commercialization of services, specifically those related to information and communication technologies. Telecommunications, computers, and information services represent, by 2020, an export market of around 680 billion dollars, with growth since 2005 of 437%, dominated by Ireland, India, and the United States (TradeMap, 2021). International trade in services represents only a fifth of world trade. However, this is the fastest-growing sector. In addition, the service sector, directly and indirectly, maintains two-thirds of the jobs in developing countries and four-fifths in developed countries (WTO, 2019).

The importance of the commercialization of services lies not only in their role in creating jobs but also in the production of manufactured goods since they act as intermediaries in their development process, becoming a fundamental basis of the national and international economy (Gnangnon, 2020). Investment in these services has significantly reduced operating costs for the companies that produce them, creating an opportunity for their exploitation. In addition, their production and subsequent international marketing increase the productivity of the countries that offer them due to the optimization of the performance of production factors and the diversification of the productive matrix. (Van Ark et al., 2008). The production of services allows international outsourcing in a more simplified way than the production of manufactures, so it is possible to develop economies of scale, obtain lower organizational costs and even convert fixed costs into variable costs (Lodefalk, 2010). Even the export of services can be carried out directly because of its intangibility nature, allowing industries, whether services or manufacturing, to acquire added value more efficiently. Due to their easy access, services are subject to a more competitive market, but not necessarily with value chains that are easier to replicate (Nordås, 2010).

Within the Ecuadorian framework, Espinoza and Gallegos (2017) indicate, based on data obtained through the Ecuadorian Internal Revenue Service and the Ecuadorian Software Association, that in the year 2015, software production represented less than 1% of the national GDP, with annual sales of 500 million USD; and, about 30% of the companies in the industry export. They add that the Economic Commission for Latin America and the Caribbean (ECLAC) estimated that in 2013, there would be at least 480 companies dedicated to this activity, which generates 500 million, of which 10% corresponds to sales by exports.

In this context and for this investigation, Riverminds CIA Ltda. is a software production company founded in 2013, based in Cuenca, Ecuador, dedicated mainly to the commercialization of ERP programs and IT administrative solutions with experience in development. commercialization of ERP programs and IT administrative solutions with experience in development.

1.1 Objectives

- To determine if the Ecuadorian software producer Riverminds CIA Ltda. is capable of internationalizing through the analysis of the creation of a subsidiary company in the US market.
- To propose a model of analysis before the internationalization of software services companies.
- To set a precedent for the internationalization of Ecuadorian software-producing companies.

1.2 Theoretical Framework

The international commercialization of services dates even before what we know today as states, with the purchase and sale of maritime services or even of a financial nature with the very creation of banking. However, it was not until the end of the 20th century that it began to develop rapidly. According to data from the World Trade Organization (2013), in 1980, the export of services represented 20% of total world exports; by 2010, this would grow to 31%. Even though the international exchange of services sustains about two-thirds of jobs worldwide in developing countries and four-fifths in developed countries (WTO, 2019), the complexity of its measurement, classification, and study has caused a lack of analysis within the leading international trade theories (Boddewyn et al., 1986).

This situation becomes even more complex in studying communication and information technology services since these are produced in cyberspace (Monaghan et al., 2015). Bermejo and Sánchez (2008)

consider that one of the reasons why these studies have not centered on the tertiary sector is that this sector (before the international subcontracting boom) was considered a sector with little capacity for internationalization. Thus, Monaghan, Tippman, and Coviello (2015) also explain that there have been accidental internationalization phenomena due to the birth of digitalized companies. So, it is difficult to study something unknown since many of these companies did not have the intention OF exploiting the international market in which they were already introduced.

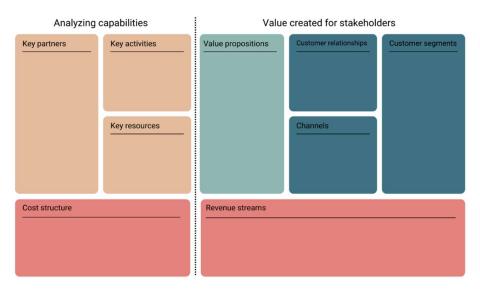
The Uppsala Model is the most extensively analyzed modern internationalization theory regarding digitalized service companies. Buckley (2016) states that this theory explains how digitalized companies can follow processes to build a community of networks concerning users or providers. However, the main criticism of this model is the timing of internationalization, to which the model describes that as the company gains experience, uncertainty decreases and, therefore, risks; but, with the examples of born global companies, which in many cases correspond to digital companies, this argument does not apply. In the Latin American case, and specifically, in Argentina, where the export sector represented, until 2017, 1.7 billion dollars, and 2.5% of the total exports (López & Ramos, 2018); the software exporting companies expressed that their internationalization took place in a period of fewer than five years. The companies explained that both the experience and the trajectory of the firm were not the main factor in accessing international markets but rather the construction of a community of users and providers and the knowledge of the market they targeted (Agramunt & Andres, 2015).

Due to the gaps in the traditional internationalization theories, authors such as Aagard (2018) present business models with a global approach to nascent digital companies. Mauro et al. (2020) agree, based on their study of software exporting companies in Mar de la Plata, Argentina, that digital companies could be considered born global companies from the beginning to facilitate their internationalization process. Among the main models proposed by Aagard are:

Business Model Canvas

Figure 1

Business Model Canvas

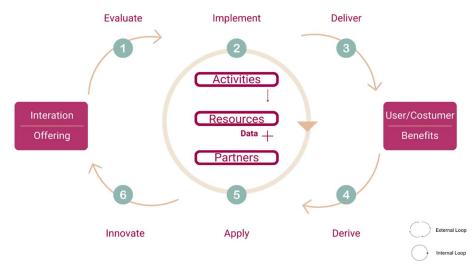


Reference: Aagard (2018) based on Osterwalder y Pigneur (2010)

Osterwalder and Pigneur (2010) developed a model attributed to positive aspects such as easy use of users, good documentation of the company's main characteristics, and its immediacy of application. Among its negative aspects are the non-specialization in technology companies and the assumption of knowledge of the client's needs (Aagard, 2018). Sathananthan et al. (2017) propose a variation of this model for digitalized companies: the Business Model Innovation created by Evonik MSE. It only differs in that the channels are

not implicit and replace them with benefits for the creation of value with the consumer; This is how they propose their variation of the Business Model Canvas:

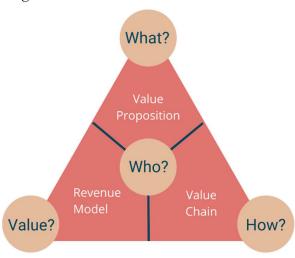
Figure 2
Digital Business Innovation Loops



Reference: Sathananthan et al (2017) based on Evonik MSE

St. Gallen Magic Triangle

Figure 3
St. Gallen Magic Triangle

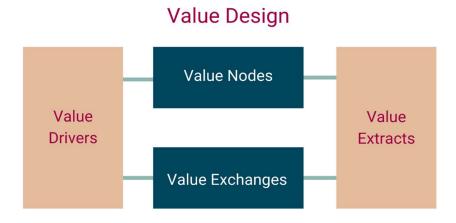


Reference: Aagard (2018) based on Gassman et al. (2014)

Gassmann et al. (2014) proposed a model that has a simple application. However, its simplicity means good mapping is less achievable. As well as the previous model, it is not specific to digitalized companies (Aagard, 2018).

Value Design Model

Figure 4 *Value Design Model*



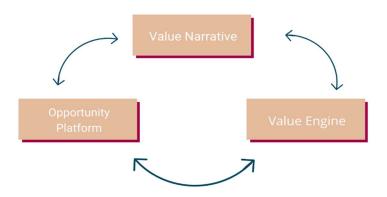
Reference: Aargad (2018) based on Westerlund et al. (2014)

This model, proposed by Westerlund et al. (2014), unlike the previous models, analyzes the interaction between its components, is more suitable for digital companies, and provides a holistic view. Nevertheless, its use is not as user-friendly as previous models (Aagard, 2018). For the application of this model, the authors, Keen and Williams (2013), recommend taking into account three main ideas to construct value for digital companies:

- The value is built from the consumer
- The resources for research and the scale in the market do not determine an ability to create value; instead, the efficiency in maintaining networks with customers and suppliers.
- The adaption to new concepts of value constantly being created is decisive.

The authors also contribute with their value-building model called Value Architecture:

Figure 5 *Value Architecture*

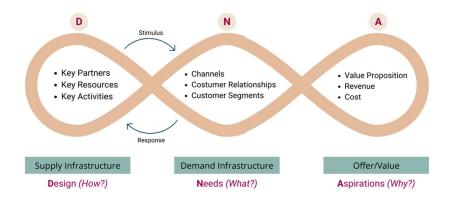


Reference: Keen and Williams (2013)

DNA Model

Figure 6

DNA Model



Reference: Aagard (2018) based on Sun et al. (2012)

It stands for the initials of Design, Needs, and Aspirations. Created by Sun et al. (2012) as a variant of the Business Model Canvas, this model represents better the reality of digital companies, unlike its base model; However, it does not emphasize its components, so it does not allow an in-depth analysis (Aagard, 2018).

2. Previous research

Vargas (2021) demonstrates that, in the Peruvian case, exists a correlation between the capacity for innovation and the export of software. In addition, he discovered that the software exporting companies included in his study, for the most part, are older than five years; and whose exports are no longer than one year, establishing that they do not fit within the born global theory.

The author also establishes that the second key correlation factor with export capacity is the capacity to absorb information. Among other factors are creativity, communication skills, experience in the English language, team support, conflict resolution, and constant training of its human resources in terms of innovation.

In this context, Uribe (2018) contributes to the Latin American situation regarding the capacity for innovation, including other variables related to education and investment:

Table 1Competitive Global Index for Latin American countries 2017-2018

Country-Ranking	Innovation Capacity	Quality of Scientific Institutions	Colaboration University-Industry in I+D	Innovation
Argentina	71	37	81	72
Bolivia	0	0	0	0
Brasil	73	77	70	85
Chile	76	43	58	52
Colombia	89	64	53	73
Ecuador	104	98	102	111
Paraguay	94	132	126	127
Perú	113	105	107	113
Uruguay	101	61	80	93
Venezuela	116	95	104	131

Reference: Uribe (2018) based on data from the World Economic Forum (2018)

According to Uribe (2018), Ecuador would occupy third place in terms of innovation capacity, first place in quality of scientific institutions, fourth place in university and industry collaboration, and fourth place in innovation; positioning it at a general level as one of the countries with the highest competitiveness index in Latin America in 2018.

Mochi (2019), regarding the export of software in Latin America, agrees that the capacity for innovation is crucial. He adds that labor cost advantages are not enough to stand out in this industry; He explains that other countries specialized in this industry, such as India, have quality control programs that give them an advantage over Latin American producers that do not. Specifically, in the Mexican case, he notes that this industry is just developing in the domestic market, so the producers are not specialized; only the big companies export software. However, this represents an opportunity for Latin American countries to create an international geographical division of this industry since India is the leading player in the field.

The author adds that the educational capacity of the countries is essential for developing this industry. Diez et al. (2020) agree with this position since, in their investigation of Argentine software exporting companies, they discovered that more than 80% of their employees have third or fourth-level university degrees. Among other relevant results, they highlight that 40% of the companies have laboratories specialized in innovation; unlike the Mexican case, the majority of exporting companies belong to the SME sector; in addition, more than 40% of these develop products in conjunction with related companies.

Acha and Bravo (2009) establish that in the Chilean case, the software producers are focused on satisfying the needs of the internal market. Only 8% of the companies have employees focused on software production for export, and 30% of the companies have employees dedicated to searching for foreign clients. Among the main barriers to the development of this industry is the complexity of accessing financing since the industry does not have government benefits to a large extent, taking into account that 80% of the industry are SMEs and the lack of management capacity and adaptability.

For his part, Guijarro (2013), in his export proposal for the Ecuadorian software company "Asinfo" explains that there are great opportunities to export software, and specifically ERP products, to the Peruvian market because the industry has not developed its optimum capacity. In addition, he presents the Joint Venture as a solution to overcome the barrier of market ignorance.

3. Methodology

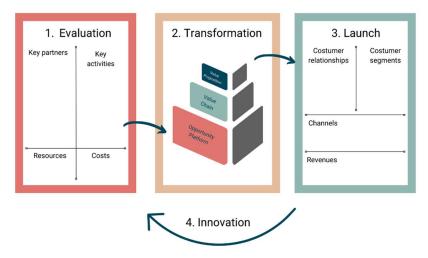
For this investigation, a new model is proposed to apply to the company interested in internationalizing. The model is based mainly on the Business Model Canvas models of Osterwalder and Pigneur (2010), on the Digital Business Model Loop model of Evonik MSN at Sathananthan et al. (2017), on the St. Gallen Magic Triangle by Gassmann et al. (2014), and Value Architecture by Keen and Williams (2013).

This model consists of 4 phases:

- 1. Evaluation: in which the resources, assets, strategies, partners, and everything that builds the company in question are listed.
- 2. Transformation: begins with a first subphase called opportunity platform, where the company's components are analyzed in detail; it continues to the second subphase, where a value chain is built and specifies which processes the platform follows to create even more value. Finally, the last sub-phase is reached, where the final value proposition is obtained.
- 3. Launching: the final components are analyzed and compared with channels, customer segments, customer relationships, and revenue models.
- 4. Finally, the value proposition is presented to customers to move on to the last phase, which consists entirely of innovation, and the cycle starts again.

For the application of the model to the company Riverminds CIA Ltda., data will be obtained from primary sources that the company will provide and from secondary sources related to documents obtained through platforms such as the Superintendence of Companies, Securities, and Insurance of Ecuador.

Figure 7
Business Model Canvas for digitalized companies previous to internationalize



Reference: Own elaboration based on Gassman et al. (2014), Keen and Williams (2013), Sathananthan et al (2017),
Osterwalder and Pigneur (2010).

4. Results

Figure 8

Business Model Canvas: First phase of evaluation

1. EVALUATION



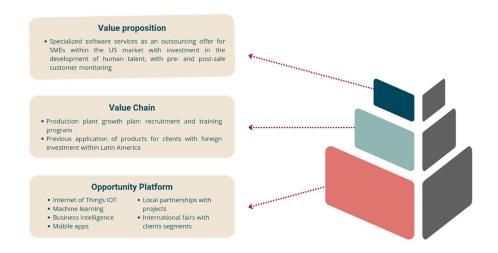
Reference: Own elaboration based on data from Riverminds CIA Ltda.

The first phase of the application of this model focused mainly on the current situation of the company in which it was determined that the strategic alliances of Riverminds CIA Ltda. correspond to associations with software production companies, as well as chambers of commerce that provide information such as advice. Taking into account that the Chamber of Commerce located in the city of Cuenca, Ecuador, has a relationship with the Ecuadorian American Chamber, the company can access advice for the penetration of the US market..

Figure 9

Business Model Canvas: Second phase of transformation

2. TRANSFORMATION



Reference: Own elaboration based on data from Riverminds CIA Ltda.

The second phase of transformation established that the IoT (Internet of things) products, machine learning, business intelligence, and mobile applications would constitute the opportunity platform. These products will be perfected through the presentation of previous prototypes in current projects of the company Riverminds CIA Ltda in the Latin American market before the entry of the subsidiary Riverminds LLC in the US market. In addition, international fairs are regaining strength after the COVID-19 pandemic, generating an opportunity to obtain clients.

The subsidiary based its value chain on the growth of the production plant, which will be accompanied by a recruitment and training plan in which the company Riverminds CIA Ltda will focus its efforts on developing human talent through continuous education. With the experience generated from the previous application of prototypes, the products will go through improvement processes that will allow Riverminds LLC to offer a specialized product.

The value proposition generated in this model consists of specialized software services offered as outsourcing because of their production in the Ecuadorian parent company, whose target market is US SMEs. These services will be backed by investment programs in developing human talent and pre-and post-sale monitoring.

Figure 10
Business Model Canvas: Third phase of launch



Reference: Own elaboration with data from Riverminds CIA Ltda.

The third launch phase determined that the relationship with customers will be based on the previous experience generated by the parent company in the telematics field. Microsoft Teams will be used as the primary tool. Support processes prioritize and monitor customer satisfaction in the relationship with customers.

Figure 11
Business Model Canvas: Forth phase of innovation



Reference: Own elaboration with data from Riverminds CIA Ltda.

Finally, in the fourth phase of innovation, five main development points have been raised:

- Implementation and renewal of the research department will be vital in offering products with better characteristics and products corresponding to the new environment presented by ICTs.
- Generation of an international investment plan involves generating FDI within the parent company.
- Generation of human talent through education programs.
- Implementation of direct sales channels will expand the target market.
- Production of software for end customers.

5. Discussion

The authors on which this model was based establish several parameters of success once the company has been analyzed. Gassman (2014) states, concerning the results obtained, that the interaction of resources (in this case primarily human) with a committed administration; a creative process willing to work outside the box; and the implementation of prototypes with real clients with direct feedback will determine the success of the objectives proposed by the company in question.

In this context, Riverminds CIA Ltda and its subsidiary Riverminds LLC would have to direct their efforts to develop a creative process that reinforces their proposed programs. It should be noted that the company has a service application plan in other markets in Latin America with real clients, so it can generate information based on feedback from these clients before starting its activity in the US market.

Sathananthan et al. (2017) express the need for companies to develop new models taking digitalization into account, so in this case, it is even more critical due to the very nature of the company. In this sense, by applying a new model that considers the new needs of digitalized companies, the company satisfies this need.

Regarding Latin American companies with experience in the internationalization of digital services, Vela (2012) establishes that Ecuadorian software producers mainly face three obstacles within their internationalization process:

- Lack of support and government research
- Difficult access to financing and the
- Complexity of hiring and training human resources.

Therefore, the company Riverminds LLC has considered forcing the issue of investment and contracting. Since its location is in the United States, it has a borrowing capacity with lower interest rates compared to its parent company; as well as, it can generate interest for investment by keeping that capital in Ecuador. This strategy makes it possible to face the need for capital to generate human talent within the same company.

Grosso (2019) agrees that the main obstacle for companies in the software industry in Latin America is the lack of trained human resources, which is why human resources departments play a crucial role in companies. The author also comments that government efforts, as in the Argentine case, to exploit the potential of this industry have not produced results. For this reason, Riverminds CIA Ltda knows that the responsibility of developing human talent falls under its investment. He even mentions that the primary services that Latin American software companies can focus their efforts on are: ITO linked to ERP, project management, and application development; services that Riverminds LLC will be offering.

Likewise, García and Valdez (2018) raise the imminent challenge of companies facing the new globalized world, so the internationalization of software services SMEs has become necessary. They suggest that the future strategies of these companies should be directly focused on expanding their market outside their countries of origin.

Although this model generates an explanatory panorama for creating the Riverminds LLC subsidiary within the United States, it is necessary to carry out more supporting research, including market studies and deeper internal and external analyses that can support this model and, therefore, the decision-making of the company.

Once this model has been analyzed, it should be taken into account that new lines of research are opened, among which the following are recommended: effectiveness of business models for digitalized companies within Ecuador, analysis of the lack of specialized human resources in Ecuador within the industry of software, analysis of public policies regarding the promotion of the tertiary sector, contribution of digitized companies to the Ecuadorian economy, among others.

6. Conclusion

To conclude, this investigation has shown that Riverminds CIA Ltda has excellent advantages in establishing its subsidiary Riverminds LLC in the United States. Among these is the implementation of the production of trained human talent, solving one of the biggest obstacles in the country of its parent company, not having the capacity to hire resources directly due to the lack of supply of these. Another significant obstacle the company will solve is access to financing. By establishing itself in the United States, the company can access loans with interest rates considerably lower than those of the Ecuadorian market. It even gives way to reinvestment in the parent country, generating income from a new economic activity.

Regarding the "Business Model Canvas for digitized companies prior to internationalization," it is concluded that this model will help digitalized service companies within Ecuador that wish to extend their operations not only to local markets but also to international ones. The nature of these companies allows them to carry out internationalization processes without having physical activity in the target markets. Companies like Riverminds CIA Ltda must train human resources within their production plants and access financing.

It should be noted that, although this model constitutes an essential aid for the internationalization of service companies, it is necessary to consider that it was based on the needs of companies related to technology, information, and communication services in a specific market. For this reason, the variables can change between other service companies, as with other target markets.

The internationalization of digitalized service companies constitutes a significant economic growth factor for the country. Since they can reach foreign markets more quickly, with simpler logistics processes and without needing to be present in the target markets, they generate more resources from foreign markets within the State.

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