
Business Consolidation of BIC Microenterprises in Bucaramanga, Colombia

Consolidación empresarial de microempresas BIC en Bucaramanga, Colombia

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Received: January 25, 2024.
Approved: October 2, 2024.

Abstract

In Colombia, there has been a significant growth of Collective Benefit and Interest Companies (BIC) over a short period. These organizations combine business activities with generating benefits for their employees, contributing to the country's equity, and protecting the environment. This research seeks to identify the dimensions and variables necessary for strengthening and consolidating BIC companies in Bucaramanga, Colombia, over time. We used a structured diagnosis based on a survey of managers of BIC companies and the analysis of data through a binomial logistic regression statistical model. Our main results showed that it is necessary to strengthen these companies' access to benefits established in regulations and how managers of organizations manage these benefits and direct them to their employees. We identified that their future consolidation is directly related to the management and empowerment of collaborators.

Keywords: BIC companies; business consolidation; statistical model.

JEL Classification: M10, M14, M19.

Resumen

Las empresas de Beneficio e Interés Colectivo (BIC), definidas como organizaciones que combinan la actividad empresarial con la generación de beneficios para sus trabajadores, el aporte a la equidad del país y la protección del medio ambiente, han crecido de forma significativa en un corto período de tiempo en Colombia. La presente investigación busca identificar cuáles son las principales dimensiones y variables para que las empresas BIC de Bucaramanga, Colombia, se fortalezcan y se consoliden en el tiempo, a partir de un diagnóstico estructurado tras la aplicación de una encuesta a los gerentes de empresas BIC y el análisis de datos con un modelo estadístico de regresión logística binomial. Como principales resultados, se encontró que es necesario fortalecer el acceso de las empresas a los beneficios establecidos en la normatividad, así como la forma en la que los gerentes de las organizaciones gestionan esos beneficios y los dirigen hacia sus colaboradores. Por otra parte, se logra identificar que la consolidación a futuro de estas empresas se relaciona directamente con la gestión de los colaboradores y su empoderamiento.

Palabras clave: Empresas BIC; consolidación empresarial; modelo estadístico.

Clasificación JEL: M10, M14, M19.

1. Introduction

BIC (Benefit Corporation) type companies have experienced significant growth in Colombia in recent years and represent an interesting alternative in terms of commercial possibilities and access to tax benefits, financing, and the exclusive services of the Superintendence of Industry and Commerce, among others (Colombia es el que tiene..., 2021). Therefore, adopting this type of denomination may be attractive for organizations, considering that SMEs are an essential element of economies, such as the Colombian (Adan Gallo et al., 2022), and their survival is threatened by various factors related to the environment, as well as to management and owners.

Thirty percent of the world's BIC companies are located in Colombia, in 27 of the 32 departments of the country. More than 70% are in Bogota, Antioquia, and Valle del Cauca. Sixty percent of these companies perform services and trade activities; 13% correspond to manufacturing activities, and 85% are microenterprises (MinComercio, 2019).

In Bucaramanga and its metropolitan area, there is little evidence of BIC companies (approximately 120 organizations). Many of these operate with sustainable business models, are family-owned, and do not have an organizational structure. Most organizations in this area are focused on construction, footwear manufacturing, jewelry, commerce, and services. The BIC companies in the region have traditional origins, are oriented by the empirical method, and with founders lacking in academic studies, all of which manifests itself in a lack of professionalism within the organizations, with management unaware of the benefits or advantages of forming part of a model, group, or innovation or of dealing with issues such as inclusion, which offer certain tax benefits (Cámara de Comercio de Bucaramanga, 2022).

Considering the above, the main purpose of this research is to analyze the factors that determine permanence in the market as well as the successful strategies of the BIC microenterprises that have continued to function and consolidate within the context of the municipality of Bucaramanga, Colombia. This study is based on the theories of business consolidation, generally understood as the ability of organizations to remain active in the long term, and uses a statistical model of binomial logistic regression to determine the key factors that need to be dealt with in order to achieve survival over time. These factors emerge from a literature review

focused on the theories of consolidation and were measured through the application of a survey to entrepreneurs of the city and managers of BIC-type companies.

This paper is structured as follows: first, the theories of business consolidation necessary to identify the variables of the study are presented; this is followed by the proposed methodology, results, discussion, and conclusions.

2. Theoretical Framework

2.1 BIC Microenterprise Development

The legal model of BIC companies implemented in Latin America comes from the figure recognized in 36 states in the United States, Canada, England, France, and Italy (Connolly et al., 2016; Lancheros Sánchez & Tole Martínez, 2021). These companies, which contribute positively to society and the environment, were initially developed in the United States at the end of the last decade, when issues around sustainability and contributing to society and the environment, began to be raised. In the following years, many countries sought to encourage these new companies and adapted their commercial legislation, regulations, and corporate issues to include BICs in their business markets. Internationally, BIC companies seek to move beyond an economic interest, aiming to generate a positive impact on society and the environment. They are thus known as triple impact companies, hybrid companies, or benefit companies.

The trend for these companies extended into Latin America, and in 2018, Colombia became the first country in the region to grant legal recognition to this business innovation in Law 1901 (Ley 1901 de 2018, 2018), referring to such companies as *Sociedades de Beneficio e Interés Colectivo* (Collective Benefit and Interest Companies). Following this, other countries, such as Uruguay, Argentina, Chile, and Brazil, began supporting the idea of an innovative company in terms of sustainability and contribution to the environment, and started to regulate and thus legally recognize, “triple impact” companies in their territories.

As mentioned above, this business model was regulated in 2018 in Colombia. For the purposes of this research, we understand the term BIC to refer to “those Colombian companies configured as companies of a commercial nature, which voluntarily intend to combine the advantages of their commercial and economic activity with concrete actions to advocate for the welfare of their workers, contribute to the social equity of the country and contribute to the protection of the environment”

(MinComercio, 2021b). Thus, BIC companies are organizations that include sustainability objectives in their corporate goals and seek to combine market benefits with the implementation of specific actions to positively contribute to social and environmental issues (MinComercio, 2021a). In other words, they operate under sustainable business models, identified in the literature as triple bottom line or triple impact companies, that aim to maximize the collective interest by ensuring transparency in their business reports.

Colombia leads Latin America in the number of BIC companies, with outstanding companies such as Alpina, Movistar, Casa Toro, and Tetra Pak, together with Banco Finandina. These multinationals have opted for a model committed to sustainability and business ethics. Although distributed in 27 of Colombia's 32 departments, 70% are concentrated in Bogota, Risaralda, Antioquia, Valle del Cauca, Boyaca, Nariño, and Santander. While the Atlantic Coast contributes only 11%, there is notable growth in regions such as Casanare, Tolima, and Putumayo. This phenomenon suggests an upward trend towards adopting corporate responsibility (Colombia es el que tiene..., 2021).

It should be noted that 60% of the BIC companies focus on services and commerce, while only 13% operate in manufacturing. According to data from the Bucaramanga Chamber of Commerce, 44 companies in Santander became BIC companies in 2021, thanks to an agreement between the Chamber and Confecámaras (a network of Chambers of Commerce). Between July and November 2021, these companies committed to adopting sustainable practices and generating positive impacts, thus consolidating their commitment to corporate social responsibility and sustainable development (44 empresas..., 2021).

2.2 Business Consolidation

In general terms, business consolidation can be understood as ensuring the continuity of companies over time based on taking advantage of the business opportunities that arise (Álvarez Herranz et al., 2010). Similarly, consolidation can be defined as the main factors that form part of business development. These factors can be associated with specific variables framed within general dimensions related to people, companies, and the environment (Arango Benjumea, 2022).

By understanding business consolidation as a process that goes beyond financial soundness to involve, among other elements, adaptability, innovation, development

of structured processes, adequate management of collaborators, and relations with the environment, it is possible to establish the set of variables that comprise the main dimensions that, when measured and evaluated, determine the appropriate form of management to achieve consolidation (Garavito Hernández et al., 2020; Labarca, 2007; Pabón-Giraldo et al., 2022). Therefore, in this research, we analyze BIC-type companies in the city of Bucaramanga and its metropolitan area based on theories of business consolidation, broadly understood as the ability of organizations to remain active in the long term.

In academic literature, three dimensions were found to be significant for business consolidation: the entrepreneur, the organization, and the environment (Arango Benjumea, 2022; Borja et al., 2020; Hagin & Caesar, 2021; Karani & Mshenga, 2021). Based on these three dimensions, variables were used as the basis for the validation instrument applied to BIC microenterprises in Bucaramanga and its metropolitan area, as shown in Figure 1 (see Figure 1).

Figure 1. Significant Dimensions and Variables for Business Consolidation



Source: Prepared by the authors.

Thus, the phenomenon to be studied is the consolidation of BIC microenterprises in Bucaramanga and its metropolitan area, taking into account that since the introduction of regulations and following the crisis of the COVID-19 pandemic, these

organizations have had to reinvent, update, modernize, and modify their operations to reactivate economically and to be able to survive and consolidate their business in the market (Villarreal & Reyes Bastidas, 2021). Therefore, the question of this research arises: What are the determinants that influence the consolidation of BIC companies in Bucaramanga and its metropolitan area?

2.3 Regression Models

When determining the relationship between a dependent variable and various independent variables, hypothesis testing models are insufficient. On the other hand, regression models describe the relationship between one variable and another as a whole. Regression models, in general, are expressed in the form

$$y = f(x_1 + x_2 + \dots) + \varepsilon.$$

Since logistic regression is a multivariate analysis tool with explanatory and predictive applications, it is helpful in establishing appropriate sets of variables to structure a model that can be applied to the required analysis. This method has been increasingly used due to advancements in available computer tools, which allow the analysis of increasingly large data sets (Chitarroni, 2002).

This type of analysis can be applied in various fields, such as education models to predict student performance, medical and psychological research, and analysis of work environments (Reyes Rocabado et al., 2007; Vega et al., 2012).

In the business field, logistic regression models have also had a critical deployment, as in the analysis of competitiveness factors predicting, for example, the effects of any change in the economy on specific industrial sectors, how the purchase intention of certain products can be predicted, as well as the prediction of business success or failure (García et al., 2008; Monelos et al., 2016).

Concerning business failure, it should be noted that there are several factors that can affect companies and that go beyond traditional financial analysis. Thus, several studies use the concept of financial failure as the dependent variable, and the behavior of various independent variables, such as the most relevant financial indicators, to help determine whether a company will fail. By way of summary, the results show that factors such as profitability, increased indebtedness, reduced revenues, and uncontrolled increase in expenses, among others, are determinants in predicting whether a company will succeed or not (Monelos et al., 2016).

3. Methodology

Following the research topic and the contextualization of the project, a mixed approach study is proposed. On the other hand, given that the purpose is to create a model for the consolidation of sustainable BIC companies in Bucaramanga and its metropolitan area, a descriptive method is proposed. For the methodological development, we first created an instrument to collect information based on the previous work of Arango Benjumea (2022), which experts subsequently validated. The resulting survey comprises 41 questions divided into three sections (entrepreneur, organization, and economic environment), which refer to the independent variables.

Table 1 presents the operationalization matrix of relevant variables to determine the success factors that influence the consolidation of BICs in Bucaramanga and its metropolitan area (see Table 1). Following the literature review, the independent variable, “entrepreneur,” was analyzed using six dimensions: motivation, identification of needs, professional profile, experience, managerial competence, and qualities of the entrepreneur. For the independent variable, “organization”, the following dimensions were considered: availability of capital, organizational strategies, inter-company collaboration, R&D activities, innovation, technological capabilities, social networks and contacts, knowledge management, and level of human capital training. Finally, the independent variable, “economic environment”, was analyzed using the dimensions of the behavior of the economy, access to external sources of financing, and inputs.

Table 1. Operationalization Matrix of Variables

Variables	Dimensions		Indicators	Measuring Scale	Questions
Dependent Variable	Business Consolidation				
Independent Variables	Entrepreneur	Motivation	Degree of motivation to establish BIC companies	Nominal	1, 2
		Identification of needs	Common needs addressed by the BIC companies	Nominal	3

Variables	Dimensions	Indicators	Measuring Scale	Questions	
Dependent Variable	Business Consolidation				
Independent Variables	Entrepreneur	Professional profile	Entrepreneur's level of education	Nominal	4, 5
		Business experience	Previously managed or founded companies	Nominal	6, 7
		Management competence	Type of leadership	Nominal	8, 9
		Entrepreneurial qualities	Qualities that describe an entrepreneur	Nominal	10
	Organization	Availability of capital	Company's capital	Nominal	11
		Organizational strategies	Business development phase	Nominal	13, 14
		Business-to-business collaboration	Collaboration between companies	Nominal	15, 16
		R&D activities	R&D development in the BIC dimensions	Nominal	17
		Innovation	Development of innovation in the company	Nominal	18, 19, 20
		Technological capabilities	Level of technological capacity	Nominal	21
Social networks and contacts	Presence in networks	Nominal	22, 23, 24		

Variables	Dimensions	Indicators	Measuring Scale	Questions	
Dependent Variable	Business Consolidation				
Independent Variables	Organization	Knowledge management	The existence of knowledge management process guides	Nominal	25, 26
		Level of human capital formation	Training and development in the BIC company	Nominal	27
	Economic environment	Economic performance	Affected by external factors	Nominal	30, 31, 32, 33
		Access to external sources of financing external	Sources of financing	ordinal	12
		Access to inputs	Contact with suppliers	Nominal	28, 29

Source: Prepared by the authors.

Questions to entrepreneurs sought to explore their characteristics associated with the level of education, previous managerial experience, the focus of their managerial style, knowledge of the benefits that BIC companies have in Colombia, the degree to which they use these, and how the companies meet the needs associated with the objectives of BIC companies.

Regarding the organization, we sought to determine its size based on its capital, its access to the benefits that have been established for BIC companies, and whether they have taken advantage of any of these obstacles that have been encountered in the management of the organizations together with how the strategic decisions made by the entrepreneurs have benefitted, or not, the performance of the company, and interactions with other companies of the same type. Other dimensions evaluated include: research and development initiatives, the existence of an area focused on innovation that responds to the needs of the environment, access to the benefits that exist for these companies within the national regulations, such as the management of innovations by the Superintendence of Industry and

Commerce (Superintendencia de Industria y Comercio, in Spanish), the technological capacity of the company to manage and face the changes demanded by the business environment and the level of preparation of the company to face the needs in technological terms, and the presence of the company in social networks and internet, understood as a mechanism to contact customers and other stakeholders.

Questions were also asked regarding important management elements, such as the existence of defined processes and procedure manuals, management indicators, as well as employee characteristics in terms of training, ability to respond to organizational needs, and employees' prospects for development and growth within the organization.

Furthermore, the interaction of the BIC company with the business environment was evaluated in terms of interaction with other BIC-type organizations and the relationship with companies associated with special groups, such as companies led by women, ethnic minorities, and companies with an environmental focus. We inquired about the impact of the variations in the macroeconomic environment, such as variations in exchange rates and access to the benefits of government policies.

Finally, questions were asked about the characteristics of the companies, focusing on their purpose, corporate purpose, business model, outstanding labor practices, and environmental practices, to determine whether the companies are aligned with the BIC dimensions, as well as the most significant results of the last management report and the entrepreneur's perception of the company's degree of consolidation.

We consulted the Bucaramanga Chamber of Commerce database about the population and sample, identifying 32 companies categorized as BICs. Therefore, the population coincided with the sample. The survey was applied in person to the managers of these companies, thus obtaining the necessary data to develop the relevant statistical model.

4. Results

4.1 Characterization of BIC Companies in Bucaramanga and its Metropolitan Area

Based on a sample of 32 companies, the characteristics of the most relevant dimensions that determine their success in the business consolidation process were established. Characteristics associated with the entrepreneur, the organization,

and how the companies relate to the environment were measured to achieve the former.

4.1.1 The Entrepreneur

First, most of the entrepreneurs, 20 respondents, have a graduate level of education, followed by 10 with a postgraduate degree. The majority have no experience in business management, as eight respondents had worked as managers before, but this is their first management-level position for the rest.

Second, regarding the general benefits of BIC-type companies, entrepreneurs have extensive knowledge, with 28 respondents indicating that they were aware of the specific benefits established in the current legislation for this type of company. On the other hand, 62% indicated that the company's corporate purpose was directly related to the training they had received. It is important to note that most entrepreneurs have no experience managing other companies, which is considered a critical dimension due to its importance for decision-making and problem-solving. This factor was considered relevant by 22 of the respondents. When asked about managerial style, 30 entrepreneurs recognized the importance of delegating responsibilities to their employees and believed that employees could adequately follow the instructions they gave in their companies.

Along the same lines, the ability to help employees meet their goals, work as a team, and communicate effectively was also studied. The entrepreneurs' profiles have characteristics that are important to measure and that, at first glance, were not positive. For example, some entrepreneurs had to have absolute power over their workers, insisted that employees follow the rules rigorously, or believed in themselves more than in their team.

At the same time, there were other positive characteristics that entrepreneurs considered important, such as empowering their work team, the ability to lead from any level of the organization, and orientation towards the fulfillment of the established tasks. Entrepreneurs could be described as searching for inspiring collaborators, persevering, audacious, determined, passionate about what is being done, creative, and patient. On the other hand, qualifiers associated with indecisiveness and risk-taking were seen as unimportant by entrepreneurs.

4.1.2 Organizations

Regarding the characteristics of BIC-type companies, we first sought a general idea of the organization's size. We found that most have a capital of between 0 and 50 million pesos (ten companies) or between 51 and 100 million (eight companies). It is noteworthy that four of the companies have capital worth more than 1 billion pesos.

Financial benefits were one of the main motivations for becoming a BIC company. Twenty-eight respondents indicated that this benefit was the motivation for the establishment of their company. It is also noteworthy that these companies' objective was to generate sustainable employment, followed by access to preferential credit lines.

It is important to point out that most companies do not have an innovation area: 26 of the 32. Twenty respondents stated that they had carried out some innovative processes. However, they did not have access to the benefits granted by the Superintendence of Industry and Commerce (SIC) in terms of innovation management.

Another crucial internal aspect is that organizations must carry out knowledge management processes, which entail a defined manual of functions, establishing a model of indicators, adequate training for employees to perform their functions, and a manual of company values and expectations. Regarding these characteristics, it is highlighted that knowledge management, together with the level of employee training and skills, is necessary to develop their occupations. Twenty-two of the companies have a functions manual, 18 have a system of indicators, 28 consider employee remuneration to be adequate, 18 have extended social security benefits for their employees, and 20 have an explicit statement of values and expectations, which indicates compliance with BIC dimensions proposed in the creation of these companies.

On the other hand, most of the entrepreneurs surveyed (20) indicated that their companies did not aim to develop new products. However, 30 of the 32 have the creation of sustainable employment as one of their objectives. Of the companies surveyed, 24 have a presence on social networks to publicize themselves and interact with customers, 20 have their own website, 22 have a presence on Instagram, only eight have a LinkedIn profile, and 18 have a Facebook page.

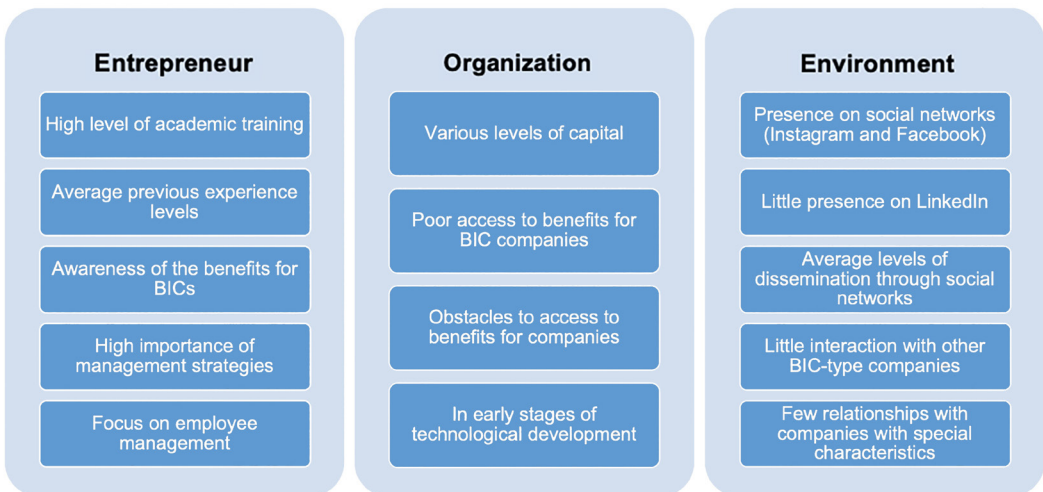
The possibility of establishing relationships with other BIC-type companies, according to the literature review, is important insofar as the formation of clusters can help the development of this type of organization (Karani & Mshenga, 2021). Upon inquiring about the relationship of the respondents with other companies with the same

characteristics, it was found that most of them do not have suppliers that are BIC-type companies (24 out of 32), half have companies led by women as suppliers, 18 have a relationship with companies that have equitable standards and care for the environment, while none of their suppliers are companies led by ethnic minorities.

4.1.3 Interaction with the Environment

Finally, about the interactions of the companies with the macro aspect of the environment, it is noted that the majority (22) have not been beneficiaries of public calls for the allocation of seed capital, and 24 of the 32 consider the lack of knowledge of public financing policies to be an obstacle. It was identified that there is a lack of information regarding the requirements and procedures for this type of company and that compliance with these is, therefore, difficult. Eighteen respondents considered that the processing times for accessing the benefits established by law are excessive and that the financing conditions are unattractive. In turn, they believe there are delays on the part of commercial banks in the intermediation processes with public lines of credit. The evaluation of the characteristics of the entrepreneurs, the companies and their interactions with the environment are summarized in Figure 2 (see Figure 2):

Figure 2. Summary of the Characterization of the Companies



Source: Prepared by the authors based on the results obtained.

4.2 Binomial Logistic Regression Model

For the binomial logistic regression model, we considered the various dimensions related to the independent variables: entrepreneur, organization, and economic environment, to determine if it is possible to predict or explain whether a BIC-type company in Bucaramanga can consolidate over time through the management of critical aspects in the identified dimensions. The application of the statistical model is described below.

First, the available data were reviewed, and no outliers or significant errors were identified. Subsequently, a variable normalization test was performed to establish whether the results obtained approximated a normal distribution. The test of approximation to the normal distribution is applied for samples with less than 50 records. It is also important to determine whether parametric tests are possible or if, on the contrary, the data need to be transformed or nonparametric tests applied (Cox & Snell, 1989). A process of debugging variables of the model was carried out, identifying the key dimensions for the study.

Regarding the variables related to entrepreneurship, managerial competence (v14, v21) and entrepreneurial qualities (v26) were considered. Regarding the environment variable, presence in networks (v66) and contact with suppliers (v68), detailed in Table 2, were analyzed (see Table 2). These dimensions showed the most robust predictive profile concerning the dependent variable.

Table 2. Dimensions and Variables Associated with Business Consolidation

VARIABLE: ENTREPRENEUR	CODE
Dimension: Management Competence Related question: Answer Yes or No to each of the following statements [In your company, do your collaborators work as a team to achieve goals?]	v14
Dimension: Management Competence Related question: Do you agree Yes or No that a leader should have any of the following characteristics? [Empowering the team and its management]	v21
Dimension: Qualities of the Entrepreneur Related Question: Do you identify with each of the following adjectives? [Persevering (Standing firm in what you think or what you do)]	v26

VARIABLE: ENVIRONMENT	CODE
Dimension: Presence in Networks Related question: To the following questions, answer Yes or No [Have you expanded benefits in terms of social security in general for your employees in the last year?] 	v66
Dimension: Contact with Suppliers Related question: Does your company have suppliers that are BIC companies? 	v68

Source: Prepared by the authors.

The model was evaluated in SPSS version 10.0.5, applying the following general process validated by previous works such as Arango Benjumea (2022) and Borja et al. (2020):

First, a coding was established for the responses of the dependent variable, the perception of business consolidation, as a dichotomous variable (Cox & Snell, 1989). The number 1 reflected a positive response while 0 represented a negative response, as shown in Table 3 (see Table 3):

Table 3. Coding of the Dependent Variable

Dependent Variable Coding	
Original value	Internal value
No	0
Yes	1

Source: Prepared by the authors based on model data.

Second, the model results are established when the predictor variables are not considered. Based on the number of positive responses, an approximation of the model's effectiveness is determined. In this case, the calculated effectiveness was 56.3%, which is significant from a statistical point of view and allows the analysis to continue. Table 4 shows the result of the effectiveness calculation (see Table 4).

Table 4. Classification Table a, b

	Observed	Forecast			
		V75		Percent correct	
	No	Yes			
Step 0	V75	No	0	14	.0
		Yes	0	18	100.0
	Overall percentage				

Source: Prepared by the authors based on the results of the model.

Note: V75 is the dependent variable associated with the question: Do you consider your company consolidated?

Third, the test is carried out with the variable of the equation, finding that as variables are introduced into the calculation, the value of the constant “B”, understood as the constant that represents the point of intersection with the horizontal axis in a linear model of the type $y = mx + b$, will be modified with each step. Thus, we started from a value for the constant of 0.251, as shown in Table 5, representing the initial equation’s general parameters (see Table 5).

Table 5. Step 0 Parameters

Parameters of step 0							
		B	Standard error	Wald	gl	Sig.	Exp(B)
Step 0	Constant	0.251	0.356	0.497	1	0.0481	1.286

Source: Prepared by the authors based on the results of the model.

Table 6 shows that variables not in the equation help to determine the value of the residual Chi-Square statistic (see Table 6). With a value of 11.907, this was found to be statistically significant, associated with a significance of 0.17 with 3 degrees of freedom. In addition, we found that including variables v26, v66, and v68 significantly affected the model as they were introduced.

Table 6. Table of Variables that are Not in the Equation

			Score	gl	Sig.
Step 0	Variables	V26	8.143	1	.085
		V66	6.100	1	0.050
		V68	2.032	1	0.123
	Global statistics		11.907	3	0.170

Source: Prepared by the authors based on the results of the model.

Table 7 shows the result of the Omnibus test, which helps to evaluate whether the outcome of the dependent variable, consolidation of BIC companies, is positive or not, with the addition of each significant predictor variable (see Table 7). If the variables were not significant, it would not be convenient to continue evaluating the model. In our case, the predictor variables were found to be significant following several tests.

The table of Omnibus test results, detailed below, shows that the selected variables are relevant to building a statistically significant model when processing the corresponding blocks and evaluating the significance levels.

Table 7. Omnibus Tests of Model Coefficients

		Chi-square	gl	Sig.
Step 1	Step	43.860	31	<.001
	Block	43.860	31	<.001
	Model	43.860	31	<.001

Source: Prepared by the authors.

Finally, Table 8 shows the variables of the equation, which allow for the prediction of the degree of consolidation of a BIC-type company based on the managerial

competencies dimension of the entrepreneurial variable, and specifically, delegation of functions to the work team and empowerment of collaborators (see Table 8).

Table 8. Equation Variables

		B	Standard error	Wald	gl	Sig.	Exp(B)
Step 10	Delegation of functions in the work team (V14)	1.089	0.31	8.141	1	0.04	1
	Employee empowerment (V21)	21.203	0.25	8.241	1	0.03	1.05
	Constant	-7.303	0.378	7.145	1	1	0.01

Source: Prepared by the authors.

The table of variables of the model equation allows us to construct the following equation:

$$y = \frac{1}{1 + e^{-(-7.303 + 1.809x_1 + 21.203x_2)}} \quad (1)$$

Where:

y= Business consolidation

X1= Delegation of functions in the work team

X2= Empowers the team and its management

5. Discussion

The equation constructed for the model shows the dependency relationship between the perception of business consolidation and the two explanatory variables with the highest significance level from a statistical point of view. In this regard, as more functions are delegated to the work team (x1) and the team is empowered (x2), the variables' value in the denominator's exponent increases. Since this corresponds to an exponential function, it increases the value calculated for the dependent variable.

The above means that for the BIC-type companies in the city of Bucaramanga and its metropolitan area, and according to the results of the diagnosis carried out, consolidation is a variable that depends largely on managers' abilities to delegate functions to their collaborators and implement this characteristic within their managerial style. Together with the empowerment of the team and the recognition of management, these companies succeed in the medium and long term.

This relationship between variables is highly significant, considering that the work team was one of the factors that stood out in the framework of the characterization carried out and that it is one of the most important internal factors within the management models analyzed in the theoretical framework. An important finding of our analysis is that the success of companies of this type very much depends on how their internal resources, that is, their human resources, are managed and that this becomes the basis for the construction of a strategy that leads to the survival and consolidation of these organizations.

While it is essential to bear in mind that strategies cannot be based solely on two variables, using them as the cornerstone for the deployment of management instruments represents an important opportunity to ensure the success and continuity of these companies in the market. Similarly, variables related to the soft skills of human talent also determine the success of these companies, as they enable the development of strategies that seek recognition, positioning, and sustainable development with corporate social responsibility.

When comparing these findings with the results of previous studies, a commonality is found regarding the key variables for business consolidation. It is noteworthy that the work of Vacca-Sánchez (2021) highlights the opportunity that BIC companies have to generate well-being for their employees, given that one of their main purposes is managing human talent within positive work environments and strengthening the capabilities of employees. On the other hand, regarding business consolidation, the conclusions of Arango Benjumea (2022) stand out in identifying important variables within the main dimensions that can enhance the growth and consolidation of small and medium-sized companies in competitive environments. This work is complemented by Garavito Hernández et al. (2020), highlighting the importance of research, development, and innovation activities in which human talent is indispensable, which is particularly relevant for BIC-type companies to the extent that it is directly related to the type of impact they intend to generate.

The work of Sosa-Rivero et al. (2020) highlights the need to strengthen managerial skills for business consolidation. These findings coincide with the results of our

model to the extent that proper management of human talent is one of the functions of BIC company managers. As such, when evaluating these characteristics, entrepreneurs were asked whether their management style included delegating functions and team empowerment. The conclusions of Belling et al. (2021) should also be mentioned, as they highlighted that variables related to the management of human talent are relevant for business consolidation to the degree that the company adequately manages its financial resources and becomes more stable.

6. Conclusions

Through surveys applied to entrepreneurs, and after defining the dimensions and variables, it was possible to construct a characterization instrument to measure how these variables behave, both according to personal perception and in the day-to-day operations of the companies and the environment in which they operate. In this way, it was possible to build a characterization of BIC-type companies in Bucaramanga and its metropolitan area around the three main dimensions of business consolidation. From the results obtained, it was evident that despite the advantages offered by regulations for this type of company, access to these is limited and that there is still a long way to go in terms of the internal management of these organizations and the strengthening and management of collaborators regarding their development and empowerment.

The construction of the statistical model made it possible to identify that the variables used for the analysis related to the management of human talent and entrepreneurs' managerial styles had the highest degree of correlation with the perception of future consolidation and sustainability than any other set of variables. By applying a multivariate method of logistic regression, it was possible to establish an equation for the model, which showed that the highest degree of correlation from the predictive point of view was between variables related to the delegation of functions in the work team and the empowerment of the team and its management. The statistical results showed that these two variables strongly correlate with the perception of survival and consolidation of BIC-type organizations in Bucaramanga and its metropolitan area.

Thus, the model constructed includes the main variables related to the dimensions of business consolidation, which show that team empowerment and delegating responsibilities to collaborators are determining elements that will help the survival

of organizations. However, managing these two variables is not sufficient; instead, a holistic effort must be made to involve and control a more significant number of variables of the organization and the environment.

The skill of adequately managing human talent was evaluated as part of entrepreneurs' managerial style and was found to be a determining factor for this type of company. It is, therefore, essential to strengthen teams through the delegation of functions and empowerment that focuses on enhancing capabilities, self-confidence, and protagonism within the organization and in the face of a company's needs concerning the environment.

In addition to the above, the model also showed other variables associated with the management of human talent that are related to the consolidation of BIC-type companies, such as proper management of organizational communication, teamwork, and orientation towards the achievement of set objectives, and the creation of a management plan that strengthens these variables, without neglecting those associated with the most relevant organizational objectives established for the organizations.

Taking into account the nature of BIC companies, where social impact constitutes one of their main objectives, it is vital for entrepreneurs to ensure that their employees receive the regulatory and additional benefits that contribute to their personal and professional development. The former can contribute to achieving positive results in terms of the consolidation of the companies, while simultaneously creating scenarios in which the ecosystem of BIC companies is strengthened, not only in Bucaramanga and its metropolitan area but also in other regions of the country.

Interaction between BIC companies has not been consolidated in Bucaramanga, as shown by the survey results. Thus, it is necessary to develop policies that encourage the formation of a cluster or conglomerate that allows these companies to build joint advantages to the extent that they can simultaneously become suppliers and clients of other companies of the same type. This may be a fundamental mechanism for the permanence and consolidation of BIC companies by strengthening their presence in the markets through alliances and stronger commercial relationships with companies whose corporate purpose relates to environmental issues and belongs to groups traditionally considered minorities. The survey revealed that the companies do not currently have solid commercial relationships with others of this type. At the same time, the literature review showed that these types of companies tend to be recognized and become stronger as they form alliances and work together.

Finally, companies must strengthen two fronts: R&D&I process and their presence in the various electronic channels. The literature discusses the importance of developing R&D&I processes focused on strengthening an organization's products and services and aligning these with the market's needs. These needs can be detected through business intelligence processes structured based on the presence of organizations in social networks and electronic channels, allowing them to gather information through tools and interactions with their customers.



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