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ORIGINAL

Importance of strategic alliances for the achievement of profitability in the companies of the coal sector in the department of La Guajira

Importancia de las alianzas estratégicas para el logro de la rentabilidad en las empresas del sector carbonífero del departamento de La Guajira

Marlene Leonor Mejia Reales[1], Angelica Barrios[1]

[1]Universidad Popular del Cesar. Colombia.

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ABSTRACT

This paper focused on identifying the importance of strategic alliances for the achievement of profitability in companies of the coal sector in the department of La Guajira. It used a descriptive approach with a non-experimental and cross-sectional field design. The population included thirteen managers, surveyed through a population census. A structured survey with Likert scale was used for data collection and descriptive statistics for analysis. The results highlighted the importance of technology, infrastructure and productivity for strategic alliances. It was concluded that there is a moderately favorable trend, suggesting that some managers do not adequately prioritize these alliances, which limits the potential success of the companies.

Keywords: Alliances; Strategic; Profitability; Companies.

RESUMEN

Este artículo se centró en identificar la importancia de las alianzas estratégicas para el logro de la rentabilidad en las empresas del sector carbonífero del departamento de la Guajira. Utilizó un enfoque descriptivo con un diseño de campo no experimental y transversal. La población incluyó a trece gerentes, encuestados mediante un censo poblacional. Se empleó una encuesta estructurada con escala Likert para la recolección de datos y estadística descriptiva para el análisis. Los resultados destacaron la importancia de la tecnología, infraestructura y productividad para las alianzas estratégicas. Se concluyó que hay una tendencia medianamente favorable, sugiriendo que algunos gerentes no priorizan adecuadamente estas alianzas, lo que limita el éxito potencial de las empresas.

Palabras clave: Alianzas; Estratégicas; Rentabilidad; Empresas.

INTRODUCTION

The dynamism of the global economy, characterized by globalization and constant change, has driven the reconfiguration of business strategies. Innovation is emerging as a crucial element, where agile and effective responsiveness becomes a fundamental competitive advantage. In this context, strategic alliances emerge as an essential mechanism to achieve organizational synergies and conquer the business world. The intangible nature of services, the difficulty of inventory, and the high cost of customer dissatisfaction reinforce the need for these alliances.

Entering and consolidating an advantageous position in the global marketplace requires that companies, particularly those in the coal sector, develop a robust set of skills and capabilities that will enable them to face competition intensified by globalization. In this context, the formulation and implementation of strategic business alliances by managers becomes imperative to respond effectively to the challenges of the environment, both internal and external, in the medium and long term.

From this perspective, strategic alliances in coal companies cover a wide spectrum of possibilities, from licensing and supply agreements to venture capital initiatives and joint acquisitions. All these forms of cooperation aim to eliminate or significantly reduce confrontation with competitors, suppliers, customers, potential new entrants and producers of substitute products.

In this way, forming strategic alliances allows the participating companies to jointly add their strengths and overcome their weaknesses by articulating activities or functions such as production, marketing, logistics, technology or financing. The realization of these alliances implies the organization of a complementary structure that seeks to optimize the economies of each member firm without losing their economic and legal individuality. The benefits of these alliances extend beyond individual profit, including the advantages derived from coordination, the rationalization of tasks, the optimization of resources and the generation of shared value.

In this same scenario, companies, especially those in the coal sector, must establish strategic alliances to ensure their survival and prosperity. These alliances represent a crucial response to the need to achieve economies of scale, optimize distribution and marketing, reduce unit costs, and promptly offer the market the best price, quantity, and quality options.

In light of the above ideas, *business alliances* are defined as developing productive, commercial, technological or financial agreements between companies that maintain their economic and legal independence. The fundamental objective of these alliances is the search for advantages and synergies, the reduction of risks and the equitable distribution of costs and benefits (Garcia, 2019). In essence, these alliances represent strategic actions implemented by a group of companies based on an authentic, formal and systemic relationship founded on principles of mutual trust and aimed at achieving a win-win relationship between the organizations involved.

The above statements highlight that a successful strategic alliance in the coal sector must be based on a strong spirit of collaboration and joint learning between the parties involved. Successful strategic alliances in the coal sector are not mere coincidences but the result of a deliberate effort to establish strong collaborative relationships based on mutual trust, joint learning and shared objectives.

Business leaders have reservations about the idea of forging alliances at the level of the coal companies in Guajira, Colombia. The reason is the fear that this would give potential competitors access to local markets, leading to disadvantages. However, they recognize that such coalitions also open the door to more agile entry into foreign markets, even if this means giving in on certain decisions. This prospect generates concern among managers.

From this perspective, market demands have prompted entrepreneurs to readjust available human, technical, financial, productive or organizational resources to adapt to these conditions. This allows them to meet the needs of their customers and keep up with technological changes. To achieve this, they apply philosophies that include the collection and analysis of information, as well as the improvement and standardization of the routine activities that make up their processes. This approach allows them to anticipate unnecessary costs and expenses, resulting in a higher return on their investment.

In addition, companies in the coal sector must focus on continuous and systematic innovation and on incorporating new knowledge into their organizational structure. This enables them to deal effectively with internal and external challenges and maintain their comparative advantages in the market. Consequently, to achieve success in today's competitive environment, these companies must define clear strategies and integrate effective management tools within their administrative process to ensure the successful execution of these strategies.

In this context, managers' scarcity of business alliances in their administrative roles in the Colombian business environment impacts the functionality and work performance among the members of these environments. Companies need leaders with strong managerial competencies to facilitate coalition building, mediate conflicts and solve problems, fostering harmonious relationships within the work team. These leaders must also be able to make decisions that benefit the collective and contribute to fulfilling managerial objectives to achieve business profitability.

These observations indicate that the problems described above manifest at various levels, from the local to the national, affecting the normal development of business activities, especially in the coal sector Engineering and Consultation of the Department of La Guajira, Colombia. It is imperative to review the concept of strategic alliances and their relevance in organizations to increase sales without increasing investments or indirect costs through the distribution system or entry into new markets.

The lack of leadership in top management is also recognized, derived mainly from the absence of strategic alliances that could provide the companies with the necessary resources to improve their profitability and create new business opportunities. In the coal companies selected for this study, there is an atmosphere of fear, negativity and criticism among managers, with a line of superior command imposing its points of view, negatively affecting their operability, organization and functionality.

Strategic Alliances

A strategic alliance is referred to as a "Competitive Collaboration", "Research Cooperatives", or "Strategic Alliances". A desirable collaboration should improve internal skills and technologies and, at the same time, avoid transferring competitive advantages to others, especially when the other is an ambitious partner. An alliance is a way of sharing risks and strengths. This means that from the outset, there must be a balance of rewards and dangers for the companies involved (Hitt et al., 2022).

The Strategic Alliance is one of the main instruments organizations must use to solve the challenges posed by globalization and competitiveness successfully. According to Kaplan & Norton (2022), a strategic alliance is an understanding between two or more different social actors who, thanks to dialogue and the detection of consensus objectives, can define a joint action plan to achieve the benefits of mutual convenience.

Profitability

According to Jurado and Jaramillo (2022), profitability encompasses any economic activity that uses material, human and financial resources to generate results. Although profitability is used in different ways and different doctrinal currents emphasize different aspects, profitability can be understood as evaluating the return that financial resources generate in a specific period.

According to Brealey, Myers and Marcus (2022), profitability refers to measuring an institution's earnings based on a specific level of sales, assets, or investment by owners. This concept applies to any economic activity that requires the mobilization of material, human and financial resources to achieve certain results.

Importance of Strategic Alliances

In certain circumstances, creating a strategic alliance becomes indispensable to facilitate the exchange of knowledge in an environment of trust, either to innovate or to consolidate existing market positions. This collaboration should provide the opportunity to position the participating company in a leadership or expansion position, either to introduce a new product or service to the market or to gain access to technology or raw materials. At least one of the partners must possess the knowledge and reputation necessary to capitalize on this opportunity.

The formation of strategic alliances must offer a favourable risk/benefit ratio. The presence of a partner significantly increases the likelihood of success, thus justifying the additional complexity involved in its implementation. In agreement, Garcia (2019) argues that strategic alliances are crucial for organizations regarding technology, infrastructure, and productivity.

Technological

The relevance of knowledge diffusion at the global level increased with the emergence of knowledge alliances or alliances of a technological nature. This term describes agreements through which multiple companies seek to acquire or develop new technologies and capabilities. According to Cabero (2019), an alliance is considered technological when at least one of the partners contributes technology as a core capability, while the others may contribute capital and distribution networks, among other resources. Consequently, technological alliances constitute both the cause and the effect of competition for possessing technological knowledge, as collaboration between firms facilitates mutual learning and accelerates knowledge transfer.

Therefore, it is of utmost importance to protect the company's core technology since it becomes a critical capability when it leads to significant competitive advantages and can be used in alliances without disclosing it, simply by sharing the results obtained. The more relevant the consortium in which the company's technology is used, the greater the risk of losing it; therefore, a greater benefit and trust in partners is required to protect the shared technology.

In addition, according to Casalla (2019), network externalities manifest themselves in using email, T-motions, and other products. Businesses benefit from these externalities by increasing their revenues at lower and lower costs. As demand for services increases, the fixed costs associated with their production are spread over the number of services produced, lowering the average fixed cost. Strategic alliances are presented as a faster and less risky way to reach many consumers, implying that companies need to be more efficient and less risky if they wish to benefit from the benefits of strategic alliances.

Firms wishing to benefit from network externalities are more likely to use strategic alliances than other forms of production organization.

Infrastructure

To achieve greater competitiveness in the market, administrative, operational and telecommunications

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areas must adjust to the dynamics of business growth and its projections. However, momentary solutions are sometimes chosen to avoid impacts on production, limiting growth. Therefore, according to Robbins (2022), companies increasingly seek to build always-available business systems and infrastructures. Therefore, having tailor-made infrastructures is invaluable, and its benefits materialize in the optimization of costs in order to have a product closer to reality.

For his part, Silva, A. (2019) expresses that for a company to work, it needs a course and plans that determine the path to follow, but undoubtedly, a company only exists if there are resources. Some organizations have more resources than others, but they all need them. For this reason, the activities related to obtaining the resources necessary for the company's operation are very important. All these activities are known as the acquisition of the company's infrastructure.

From this perspective, the production infrastructure comprises the systems, policies, procedures and organizational structures that support the production processes (quality management and control, production and inventory planning and control, human resources management, and organizational design). In other words, it is the process in which managers or entrepreneurs must decide on the company's material, financial, human and organizational resources.

Productivity

According to the Organization for Economic Cooperation and Development (OECD) (2018), productivity is the relationship between the result of a productive activity and the means necessary to obtain such production. In the business field, According to Hemphill & Williams (2022), business productivity is understood as the product of the activities necessary to achieve the company's objectives and promote a positive work environment, considering the relationship between the resources invested and the results obtained. Consequently, productivity is the most crucial business element to drive profits and expansion.

To achieve high levels of business productivity, it is essential to have effective business management that includes a series of techniques applicable to all aspects of the company. The main purpose of this management is to improve productivity, sustainability and competitiveness while ensuring the viability of the business. Therefore, increasing productivity becomes a strategic priority for any company, leading to revenue generation, expansion and consolidation in the market. According to Dessler (2023), it is crucial to monitor business activity through productivity indicators continuously, thus identifying the most critical processes that require intervention for improvement.

METHOD

The present research is carried out to explore the contributions of various authors in the area of study to identify, compile and describe the main attributes within the investigated context. The purpose is to determine the type of information required and the level of analysis to be performed. This research process is characterized by its descriptive nature, according to Tamayo (2014:179), which involves the description, recording, analysis and interpretation of phenomena as they manifest themselves in reality.

According to Hernández, Fernández and Baptista (2023:116), the research design guides the researcher in achieving its objectives, answering the questions and evaluating the hypotheses formulated in a particular context. This design is classified into experimental research (pre-experiments, pure experiments, and quasi-experiments) and non-experimental (cross-sectional and longitudinal designs). This study uses a non-experimental and cross-sectional design since the variables are not directly manipulated, and the data is collected in a single period.

The population to which the study's findings will be applied is fundamental to the research. According to Méndez (2020, p. 96), the population is defined as "a group of possible participants to which it is desired to generalize the results of the study". It is emphasized that the population constitutes the set of elements that share a series of characteristics relevant to the research, from which the information necessary for the corresponding analysis will be extracted. In this study, the population was composed of thirteen (13) managers, of which seven (7) work in companies in the engineering sector and six (6) are in the company Consulta of the coal sector in the Department of La Guajira.

Finally, because the population is small, finite and easily accessible, the population census technique will be used. This technique, according to Tamayo (2014, p. 309), implies the inclusion of all population members in the sample, making it the most representative sample. Consequently, the sample will be composed of all thirteen (13) managers of the Engineering and Consulting coal sector companies in the Department of La Guajira.

On this basis, and for this research, the interview will be used as a data collection technique, which will allow knowing the position of the people who were part of the population; this will be achieved using a questionnaire developed and applied by the researchers, which for the cited authors "represents the means that allows the researcher to know what is thought and said about the object of study".

Data collection is an indispensable aspect of research since its purpose is to obtain information, for which the appropriate techniques must be used. In this regard, Arias (2016, p. 55) points out that "data collection techniques are the different forms or ways of obtaining information". In this case, he used the survey as a technique, based on the criterion Hernández, Fernández and Baptista (2023, p. 4), who define it as "a strategy used for the collection of data, background and information, which facilitates not only the measurement of variables but also dimensions the possible scenario to reach results or opinions issued by users".

The present study was carried out using the survey technique, which was implemented following appropriate protocols that included advance dissemination of the research and prior planning of the administration of the questionnaire to the participants, who were fully informed about the purpose and procedures of the study.

According to Hernández, Fernández and Baptista (2023, p. 208), the validity of a measurement instrument lies in its capacity to measure the variable it is intended to evaluate. Therefore, before its application, its content was validated by ten experts in financial management, budget management and research methodology, whose opinions and recommendations were considered in the final version.

As stated by Méndez (2020), the reliability of an instrument refers to the degree to which it provides consistent and accurate results when applied repeatedly under the same conditions. In other words, a reliable instrument produces similar results when measuring the same variable in the same subjects or equivalent groups of subjects under similar conditions.

The results obtained to achieve the study's objectives were subjected to analysis using descriptive statistics, as Méndez (2020) recommended. This methodology allows obtaining an overall view of the quantitative data by calculating absolute frequencies, percentages, and measures of central tendency (mean, standard deviation, among other descriptive indicators, for each dimension of the variable studied.

RESULTS AND DISCUSSION

Table 1. Dimension Importance of strategic alliances

Category of Responses	Always		Almost Always		Sometimes		Almost Never		Never		Average Weighted	Category
Indicators	5		4		3		2		1			
	Fa.	%	Fa	%	Fa.	%	Fa.	%	Fa.	%		
Technology	2	15,38	5	38,46	3	23,08	3	23,08	--	--	3,46	Favorable
Infrastructure	--	--	3	23,08	6	46,15	4	30,77	--	--	2,92	MedmFavorable
Productivity	3	23,08	5	38,46	3	23,08	2	15,38	--	--	3,38	Med Favorable
TOTAL	5	12,82	13	33,33	12	30,77	9	23,08	--	--	3,25	Med Favorable

Based on the data specified in Table 4, referring to the development of the Importance of Strategic Alliances dimension, it is evident that There is a favourable trend for the technology indicator (3,46), which indicates that productivity and competitiveness levels are being raised through the incorporation of new technologies. This means there is an increase or improvement in the perception or application of technology in the context of strategic alliances. This implies that companies are increasingly recognizing and taking advantage of the value of technology in forming strategic alliances to achieve their business objectives and improve their competitiveness in the marketplace.

A moderately favourable trend is observed in both infrastructures, with an average of 2,92, and productivity, with an average of 3,38, highlighting the similarity between the two. This suggests the need to optimize infrastructure to enhance competitiveness and to improve internal company conditions to increase employee productivity. This trend reflects a generally positive view of how strategic alliances influence infrastructure and business productivity. However, it also indicates areas for improvement or uncertainty about their impact.

It is therefore necessary to consider making investments and improvements in the company's physical and technological resources as a first step. In addition, more effective human resources policies, training and development programs, and improved work processes should be implemented to optimize internal conditions and thus increase employee productivity.

In this order of ideas and taking into account the distribution of the percentages averaged in the alternatives: always (12,82 %), almost always (33,33 %), sometimes (30,77 %) and rarely (23,08 %), show that a significant percentage of managers give due importance to strategic alliances, while another significant percentage of them do not always give importance to these alliances. All this corresponds to the overall average (3,25), which aligns with the moderately favourable trend.

This suggests that strategic alliances have positive and negative aspects in the evaluated context and that their impact is not perceived as very strong in either direction. A moderately favourable average indicates room for improvement in the perception or effectiveness of strategic alliances, but their value is also somewhat recognized.

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The results referred to demonstrate the importance of technology, infrastructure and productivity as key conditions for the achievement of strategic alliances in companies, whose results are not entirely consistent with what was established by Kaplan & Norton (2022), who emphasize that strategic alliances are an understanding that occurs between two or more different social actors, who, thanks to dialogue and the detection of consensus objectives, can define a joint plan of action to achieve mutually convenient benefits. They are also important for organizations from the technological, infrastructure and productivity perspectives, thus allowing the formation of alliances that will provide a good risk/benefit ratio.

CONCLUSIONS

Considering strategic alliances regarding technology, infrastructure, and productivity within companies is important. It is highlighted that these alliances are fundamental to improving competitiveness and optimizing the operating conditions of organizations. In addition, there is a moderately positive perception of how strategic alliances can influence these key aspects. However, there is still room for improving infrastructure and productivity through these alliances. The importance of strategic alliances is highlighted as a resource to boost companies' technology, infrastructure and productivity. However, the need for further improvement in these areas is recognized.

Finally, strategic alliances emerge as a fundamental pillar for strengthening technology, infrastructure and business productivity. Although their positive impact is evident, it is crucial to continue optimizing these aspects to ensure sustainable development and greater competitiveness in the market.

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AUTHORSHIP CONTRIBUTION
Conceptualization: Marlene Leonor Mejia Reales, Angelica Barrios.
Research: Marlene Leonor Mejia Reales, Angelica Barrios.
Methodology: Marlene Leonor Mejia Reales, Angelica Barrios.
Project management: Marlene Leonor Mejia Reales, Angelica Barrios.
Original writing-drafting: Marlene Leonor Mejia Reales, Angelica Barrios.
Writing-revision and editing: Marlene Leonor Mejia Reales, Angelica Barrios.