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Review Article

Conceptual Framework for the Strategic Management: A Literature Review—Descriptive

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The objective of this work is to review the literature of the main concepts that lead to determining the strategic approach, creation of strategies, organizational structures, strategy formulation, and strategic evaluation as a guide for the organizational management, taking into account the effects produced by the different types of strategies on the performance of organizations. In this article, the systemic literature review method was used to synthesize the result of multiple investigations and scientific literature. The process of reading and analysis of the literature was carried out through digital search engines with keywords in areas related to the strategic management. This research reveals the lack of scientific literature containing important theoretical concepts that serve the strategists as a guide in the creation, formulation, and evaluation of strategies. This review contributes to the existing literature by examining the impact of the strategic management on the organizational performance.

1. Introduction

"Strategy" is the main concept of the contemporary era [1] that has come to replace previous management activities such as "administration" or "planification." According to [2, 3], the meaning of the word strategy originated in the military field and comes from the word "strategos" meaning general in Greek. Through time, its meaning has been evolving, being applied to other human activities and, in particular, to business strategies. One of the main problems for their business strategists is the understanding of the competitive environment and the interpretation of the effects of the competition in a business [4]; in consequence for the research studies the time to strengthen again the study of the categories and the competition in the investigation of the strategic management (SM) has come.

The concept of strategy over time has been addressed by several authors. One of them is Chandler [5], who proposes that the strategy is the definition of the long-term goals and objectives of a company, the adoptions of actions, and the allocation of necessary resources for the achievement of the objectives. For Andrews [6], the strategy is the model of the objectives, policies, purposes, goals, and plans to achieve them addressed in such a way that they define in which business the company is or will be. According to Porter [7], the strategy is to select the set of activities in which a company stands out to establish a sustainable difference in the market; the differentiation arises of the activities chosen and how they are the carried out.

On the contrary, Farjoun [8] considers that the mechanistic perspective is limited and makes a contribution from a dynamic and organic view. The new ideas of natural and social sciences state that the strategic processes are not only rationalist models of unitary actors but also give importance to the complexity of the soft variables and take into account the messy side of reality. It maintains that while the mechanistic perspective for the formulation of strategies is discrete, directional, and differentiated, the organic perspective is dynamic, uncertain, interactive, and integrating.

Initially as a complement to the study of the strategies from the mechanistic perspective, researchers as [5–7, 9] consider that strategies are static, reductionist, and synchronic with only one occurrence in time. Contemporaneously, a new wave of research studies was born that approach to the study of the theory of behavior and organization [10–16], and these authors point out that the strategy is a coalignment or an adaptive coordination of various states and trajectories.

According to Chiavenato [17], there are four fundamental elements in the strategy which together make a whole. The mission is the answer to the question what is the organization for. The business to which the organization is dedicated is defined, the needs that are covered with its products and services, the market in which the company is developed, as well as the public image of the company or organization. The vision is the answer to the question what do we want the organization to be in the next years. The future situation that the company wants to have is defined and described. The purpose of the vision is to guide, control, and encourage the organization as a whole in order to achieve the desirable state of the organization. The values define the set of principles, beliefs, and rules that regulate the management of the organization. Global objectives indicate the results that are wanted to be achieved in a specific period of time. These elements constitute the institutional philosophy and the support of the organizational culture [18]. The basic objective of the definition of corporate values is to have a reference framework that inspires and regulates the life of the organization.

The review of literature of the current study is divided into four sections. In Section 1, a review is made in the time of the definition of strategy. Section 2 describes the methodology used. Section 3 defines and describes the strategic approaches. Section 4 describes the general characteristics for the creation of the main strategies and defines the importance of the organizational structures for the definition of the strategies. Section 5 defines the concept of formulation of strategies through the strategic planning and its classification. Section 6 inquires about the strategic evaluation, the Balanced ScoreCard (BSC) model, and its benefits and problems. Finally, Section 7 concludes the study.

2. Methodology

A systematic review of literature has been carried out as appropriate methodology, in order to produce a reliable knowledge inventory, according to what is proposed by [19]. Several authors have used systematic review of literature to carry out their research, for example, Crossan and Apaydin [20] proposed to synthesize several perspectives through an integral multidimensional framework on organizational innovation; Peres and Fogliatto [21] showed the current state of the integration of the methods of selection of variables for the multivariate statistical process control; Nguyen et al. [22] studied the behavior on online consumer and order fulfilment operations; Charband and Navimipour [23] provided a comprehensive and detailed review of the state-of-the-art mechanisms of knowledge sharing in the education field as well as directions for future research; and Pashazadeh and Navimipour [24] provide a comprehensive and detailed and systematic study of the state-of-the-art mechanisms in the big data related to healthcare applications until year 2016.

For this research, the searching process is limited to published literature, including books, conference proceedings, and literature obtained from electronic sources, mainly databases of scientific data. The searching engines used were Proquest, Scopus, EmeraldInsight, Science Direct, and Google Scholar. The keywords used are industrial organizations, organizational behavior, strategic administration (SA), strategic approaches, and strategic evaluation. The articles reviewed are in the area of organizational structures, SM, management control, and strategic planning. This research covered the review of 5,400 publications from which 69 books, 7 conference articles, and 140 journals made major contributions.

2.1. Literature Review: Strategic Management.

The literature review corresponds to the period from January 1956 to June 2019. Each of the articles reviewed was classified according to the subject of its content (Table 1), taking into account the different criteria of each authors.

With the aim of linking and tracking the investigations Table 2 shows the number of publications per journal, and Table 3 shows the number of publications by country and the affiliations of universities by country of each author.

3. Strategy Approaches

In the last decades, a quite freely reference has been made to the concept of strategy. Therefore, there is not a unique point of view to define them. Thus, there are several generic approaches that manage to reflect different answers about what the strategy is good for and how to reach it; these approaches are implicit in two main strategies and were proposed in [25].

3.1. General Strategy.

It is responsible for conceiving the global direction of the organization. The classic approach of the strategic formulation is based on the rational methods of planning, resource allocation, and profitability. For Chandler [5], the structure follows the strategy. If the strategic plan is defined, the appropriate structure arises easily. According to Ansoff [26], this approach places great confidence in the hierarchy or scorecard and trusts in the intelligence and ability of the leaders to adopt strategies that maximize long-term benefits; the control and knowledge are competence of the executive director. This approach requires

Table 1: Literature review: strategic management.

Study areas	1956–2019	Problems identified
Strategic approaches	26	Purpose of the organization (long-term objectives, action programs, and resource allocation).
Strategic creation and organizational structures	52	Analysis of the organizational environment (action and competitiveness plans) and authority hierarchy (responsibilities and objectives).
Strategy formulation	32	Detection of the strategic GAP (scope of organizational objectives).
Strategic evaluation	37	Measurement of impact (strategic planning).

a transformational leadership, considered as the most effective way of leadership in all the array of models; this comprises four types of behaviors: intellectual stimulation, motivation, commitment, and effort, that culminate in better performance [27]. Porter [28] indicates that the process of a competitive strategy is the development of the wide formula of how a company is going to compete, which must be their objectives (mission or objective) and which policies will be needed to carry out those goals. According to Sloan [29], for the classic approach, the progress and stability of the business depends largely on the development or creation of strategies. The importance of each specialization of the strategy is recognized, stating that it should be independent of the execution policies.

The evolutionary approach raises the inability to generate strategies from inside; according to [30, 31], this approach proposes that the organizations are drifting of the changes of the external environment and depends on the magnitude of it, that is the market which defines the strategy, being this in charge of guaranteeing the minimal or maximum benefits. According to Freeman and Hannan [32], the organizational selection processes favor them and the organizations that can change the strategy and the structure as their environment change. The successful strategies only emerge as the process of natural selection offering its judgment. In this approach, the role of the top management is null and nevertheless are fundamental in the identification of the threats.

Following this approach, Peters and Waterman [33] state that the keys of excellence have to do with focusing on people, clients, and action. The eight principles for the excellence, proposed by these authors, allow any manager to make a diagnosis and evaluate its performance. These state that the application of these principles give the necessary clues for managers to convert their companies in organizations of excellence both in operation as in results. In the same way, supported on the evolutionary approach, Williamson [34] states that the strategy in the classic sense of rational planning oriented to the future is often irrelevant; this assertion is supported by Gotcheva et al. [35] who states that the organizations that better adapt to the environment are the ones that survive, even though in reality it seems to be that environment has adapted to them.

The systemic approach gives the capacity to the organizations of planning and acting effectively in their environments, it is relativistic. According to Granovetter [36] following the approach about the social incorporation of the economic activity, the systemic vision proposes the objectives of the strategy to be designed depending on the context of the social system in which it is developed, understanding that the strategies must be sensitive to the sociologic environment of the organizations which guides the strategy are particularities of a concrete sociological environment. According to Granovetter [37], a central principle of the systemic theory is to observe the decision makers as complex individuals, whose decisions are not based exclusively on economical conceptions, and understand the interrelation of the multiple variables of the society and its effect with the environment. Following the systemic approach, Whitley [38] states that a central principle of the economic sociology is that culture and the regulatory institutions help to constitute the nature of the economic actors and guide their actions, thus affecting the economic results.

According to Clegg et al. [39], the processualist approach shows the same skepticism as evolutionists regarding strategic rationality; they rely less on the capacity of the market to guarantee obtaining maximum benefits. Cyert and March [40] visualize the organizations as a system of rational adaptation that responses to a variety of external and internal restrictions when reaching decisions. Theorists of the strategies based on the resources as [41] state that the managers owe their strategies to competitive advantages of the organizations and the market processes, insisting on the informal learning and the personal vision [42]. The members of the organizations negotiate among them to arrive to define a set of objectives more or less acceptable of all, that is, the strategy is the product of a political commitment [43] and not of a calculation to obtain the maximum benefits [44]. There is a multiple interest in formation of coalitions to take care of the interests of the organizations. Following with this approach, Hamel and Prahalad [45] defend that the best competitive advantage of a company is its vision of the future; they claim that organizations must search and strengthen the most developed competitive advantages that are difficult to emulate by the competitors. At the same time, Weick [46] sees the organizations as a system that selects wrong information of its environment, stating that in the future the organizations evolve when they obtain knowledge outside themselves and their surroundings.

3.2. Company Strategy.

It is the complement of the general strategy. Its application corresponds to the leader or director. The roles of senior management and the management

Table 2: Number of publications per journal (1956–2019).

Journals	Publications
Strategic Management Journal	9
International Journal of Management Reviews	5
Long Range Planning	5
Harvard Business Review	5
International Journal of Operations & Production Management	4
Journal of Business Ethics	3
Journal of Business Research	3
Organization Science	2
American Journal of Sociology	2
International Journal of Organizational Analysis	2
Procedia – Social and Behavioral Sciences	2
International Journal of Production Economics	2
Journal of Business & Industrial Marketing	2
IEEE Conference	2
Sustainability	2
Contemporary Accounting Research	2
Human Resource Management International Digest	2
Management Accounting Research	2
International Journal of Productivity and Performance Management	2
Accounting Horizons	2
Academy of Management Review	1
KSCE Journal of Civil Engineering	1
European Management Review	1
American Sociological Review	1
Business Strategy Review	1
The Quarterly Journal of Economics	1
European Business Review	1
Strategic Direction	1
Journal of Intellectual Capital	1
Management of Environmental Quality: An International journal	1
NETNOMICS: Economic Research and Electronic Networking	1
Journal of Technology Management & Innovation	1
Procedia Economics and Finance	1
Review of Managerial Science	1
Human Resource Management Conference	1
World Applied Sciences Journal	1
Management Learning	1
Leadership & Organization Development journal	1
The Learning Organization	1
The Leadership Quarterly	1
Gender in Management: An International Journal	1
Administrative Science Quarterly	1
International Journal of the Economics of Business	1
Annals of Operations Research	1
Conference on New Challenges in Management and Organization	1
Journal of Manufacturing Technology Management	1
European Planning Studies	1
Industrial Marketing Management	1
Business Process Management Journal	1
International Journal of Engineering Business	1
Business Horizons	1
Administration & Society	1
Management Decision	1
Journal of Air Transport Management	1
Research in International Business and Finance	1

Table 2: Continued.

Journals	Publications
International Journal of Production Economics	1
International Journal of Engineering Business Management	1
Mathematical and Computer Modelling	1
International Journal of Marketing Studies	1
Journal of Management Control	1
Management Science	1
International Journal of Environmental Science and Development	1
Group Decision and Negotiation	1
International Journal of Learning and Change	1
Agricultural Economics	1
Advanced Science Letters	1
International Business Research	
Journal of Strategy and Performance Management	1
Tourism Management	1
African Journal of Business Management	1
Aorta	1
Technological and Economic Development of Economy	1
Procedia – Social and Behavioral Sciences	1
Open Journal of Applied Sciences	1
International Journal of Environmental Science & Technology	1
Economics and Management	1
Scientific Research Quarterly of Business Management Explorations	1
International Journal of Economic Perspectives	1
Planning Review	1
Arabian Journal for Science and Engineering	1
Information Sciences	1
Journal of Strategic Marketing	1
Journal of Applied Business Research	1
Business & Information Systems Engineering	1
Supply Chain Forum: An International Journal	1
Journal of Marketing	1
Financial Management	1
EMCIS Conference	1
Resources, Conservation and Recycling	1
Journal of Intelligent Manufacturing	1
International Journal of Advanced Computer Science and Applications	1
Benchmarking: An International Journal	1
Advances in Engineering Software	1
Computers & Industrial Engineering	1
Expert Systems with Applications	1
Accounting, Organizations and Society	1
Conference on Performance Measurement	1
Operations Research Society Conference	1
Journal of accounting & Organizational Change	1
System Dynamics Review	1
International Journal of Public Administration	1
The Accounting Review	1
Computers in Industry	1
Journal of Management Development	1
Alexandria Engineering Journal	1
Journal of Business & Economics Research	1
Journal of the Operational Research Society	1

Table 3: Number of publications per country where the survey was conducted and per country of the author's affiliated university (1956–2019).

Country	Number of publications per country where the survey was conducted	Number of publications per country of the author's affiliated university
USA	42	44
United Kingdom	12	18
China	11	12
Iran	10	12
Canada	8	14
Malaysia	6	7
Australia	5	11
Italy	5	5
Finland	4	8
India	4	4
Spain	3	8
Germany	3	3
Netherlands	3	3
Indonesia	3	6
Israel	2	2
Brazil	2	2
Austria	2	4
Mexico	2	2
Chile	2	2
Czech Republic	2	10
Portugal	2	5
Denmark	2	2
Belgium	1	1
Poland	1	1
Ireland	1	1
New Zealand	1	1
Greece	1	1
Sweden	1	4
Norway	1	1
Thailand	1	1
Jordan	1	1
Philippines	1	4
Ivory Coast	1	4
Russian	1	1
Singapore	—	1
France	—	1
Cyprus	—	1
Switzerland	—	2
Lithuania	—	2

of organizational projects are an essential part in the effective implementation of the company's strategy [47]. At directive level, this strategy is used as a mean to perform various functions, serving as support in decision making and carry out coordination processes and communication of goals or the strategic purpose. According to Galbreath [48], any business strategy must incorporate in an effective way the concept of corporate social responsibility (CSR). According to Bento et al. [49], CSR is necessary if developing competitive advantages is wanted in the current environment. Lee et al., Lindgreen and Swaen and Maon et al., [50–52] define CSR as a way of directing organizations based on the management of the impacts that its activity generates on its clients, employees, shareholders, local communities, environment, and society in general.

SM implies the formulation and implementation of the main objectives and initiatives adopted by the senior managers of a company, in relation to owners, based on the consideration of the resources, and an evaluation of the external and internal environment in which the organization competes [53]. Thus, it should have at least five attributes to be a business strategy [54]: (1) be measurable, (2) clarity in the objectives, (3) resource consumption, (4) assignment of responsible, and (5) that it can be checked. Companies now focus more on exploitation of external resources such as customers, rather than internal efficiency, to gain new competitive advantages. People's ideas are fed by brands, and this exercise provides the opportunity to cocreate products in collaboration with customers [55, 56].

The adequacy of the strategies can be defined from various approaches, each of which reflects different indicators; these indicators are based on the profit impact of market strategy (PIMS) structure in order to define the strategic potential (Table 4).

Table 4: Classification of investigations—strategic approaches area.

Approaches	Indicators			
	Competitive position	Market attractiveness	Production "lean"	Personal excellence
Strategic logic	[18, 40]	[54, 55]	[32]	[49]
Empirical evidence	[3, 8, 10, 53]	[37]	[1, 4, 13]	[14, 27, 52]
Adjustment or adequacy organizational	[30]	[47, 56]	[12, 34, 51]	[35, 48, 50]

Note: strategic logic: statistical models for analysis of strategic results. Empirical evidence: strategic regulations to indicate better strategic solutions. Adjustment or adequacy organizational: alternatives (organizational design, human resources policy, management style, and organizational culture) for adjustment and strategic adaptation.

4. Strategy Creation

According to Peppard and Ward [57], any organizational strategy must define where the company wants to be in the future and evaluate objectively where it is now to decide how to get there; taking into account the options, alternatives, available resources, and the needed changes. A company achieves a superior profitability in its industry when achieving higher prices or lower costs than its competitors; this is achieved through the operative effectiveness or the strategic positioning [58]. For Rumelt [59], a good strategy is a coherent set of analysis, concepts, policies, arguments, and actions that give responses to a high-risk challenge. The strategies based on the costs have been considered among the generic forms of strategic positioning [60, 61].

According to Reitzig and Maciejovsky [62], the creation of a strategy is not only a task for the executives; on the contrary, the definition of the business approaches and new measures to initiate, involve all the hierarchy levels of the organization (head of business unit, heads of products, heads of functional areas within a business or division, administrators, and supervisors). The academics and professionals are more and more interested in the concept of sustainability (integrated measure of the economic, social, and environmental performance) [63]. For Iazzolino and Laise [64], the strategies must be socially sustainable, creating value not only for the shareholder but also for the other interested, for the employees. According to Radomska [65], the sustainability issues in the strategies are becoming a natural element of the business policies, and their actions are important for the business of the company and for the financial result, as to cost reduction, cleaner production, gas reduction, and so on [66]. For supply change management, the sustainability is an important issue, creating a new age of business thinking and a source of competitive advantage [67, 68].

In general, to create strategies, authors such as Král and Králová [69] suggest that all starts from the analysis of the environment surrounding the company, pretending with it the proposition of action plans, aimed at improving competitiveness. According to Nikulin and Becker [70], in order to analyze the situation in which a company is found, the most commonly used is the SWOT analysis, which allows to determine strengths and opportunities of the company as well as the weaknesses and threats that the market offers in the scope of its business. According to Hill et al. [71], in order for a strategy to be successful, it must be designed in the following way: (1) simple, coherent, and long-term goals; (2) deep knowledge of the competitive environment; (3) objective evaluation of the resources; and (4) effective implantation.

For Hussein et al. [72], another concept to be kept in mind when generating strategies, considered a key factor in the organization performance, is the organizational learning capacity. According to Mallén et al. [73], the application of this concept allows to analyze the relation between the degree of organization structure, performance of the organization, and the learning capacity of the organization. For Norashikin and Ishak [74], an organization with organizational learning culture improves significantly the competitive advantages, allowing to survive in a competitive world [75]; in the same way it provides improvements in the performance of the companies supported by the concept of transactional organizational learning, and this mechanism allows the organizations to keep the knowledge and transmit it to specialists for the generation or rethink of new rules [76]. J. Power and D. Waddell and D. Coghlan[77, 78] analyzed the relation between self-managed work and the organizational learning capacity as indicators of performance in the improvement of the innovative capacities of the companies.

The organizations change through the transformation and restructuring of the resources and capacities [79]. One of these transformations implies to decide what kind of organizational structure is the most propitious to achieve a competitive advantage [80].

4.1. Organizational Structures. Good organizational structures act as moderators for improving the influence that leaders have about the behavior, performance, and work of their subordinates, in search of the satisfaction of the client [81]. Different authors have defined the concept of organizational structure. For Mintzberg [82], all are the patterns of design to organize a company, taking into account all the forms in which work is divided and the subsequent coordination of the same, searching to meet the proposed goals and to achieve the objectives set. For Strategor and Anastassopoulos [83], an organizational structure is the set of responsibilities and relations that formally determine the functions that each unit must accomplish and the way of communication between each work team. Chin [84] made an evaluation of how the leadership of men and women influence in the organizational structures, this author states that skills of men and women gain similar legitimacy, but when an organization fails, the perception of competence of women leaders, the status, and the interpersonal skills fall more than those of men.

The following are the requirements for the implementation of an organizational structure: (1) hierarchy of power and authority for the establishment of responsibilities and goals, which must be verifiable, accurate, and achievable [85], for them to be precise they must be quantitative and for being verifiable they must be qualitative. (2) There must be a clear definition of the duties, rights, and activities of each person. The area of authority of each person must be set, that everyone must do to achieve the goals [86]. (3) To know how and where to get the necessary information for each activity, each person must know where to get the information and it must be provided [87].

Some elements that must be considered within an organizational structure are: (1) geography: it refers to the location of the company, the nearby companies necessaries, and the geographic distribution of the areas of the organization with an effective communication network [88]; (2) number of employees: in order for the organization to work efficiently, it must have clearly defined the number of employees that are required [89]; (3) evolution of the product: the organization must evolve to the extent its product does, being able to start as a small line and then diversify as needed; (4) distribution of the authority: it must be established if the organization works in a centralized or decentralized way [85]; (5) control: it refers to the requirements and regulations that must be implemented in function of the type of product that the organization offers, with the purpose of complying with them and offering a competitive product; and (6) market: the organizational structure of the institution must rotate around the suppliers and the consumers, and it must have a marketing team and adequate selling force. The organizations created the structures to coordinate the activities of work factors and control the member performance [90, 91]. Based on these two authors, Table 5 describes the advantages and disadvantages of each type of organizational structure proposed in this study.

4.2. Corporative Strategy. The objective of this strategy is to add value to the business portfolio of the companies reaching to overcome its competitors [92]. If an organization is in more than one line of business, a strategy at a corporative level will be needed (diversify company). The corporative strategy can be understood as the possibilities that an organization has to define its future positioning [93]. The way to announce this positioning can go from simple motivation messages until reaching to strict objectives and deeply detailed of the business, relating the indicators and the variables of business, with a rigid methodological approach [94]. Examples of that are the competitive priorities, which are translated from the operative decisions derived from the corporative strategies and the client requirements [95].

According to Mazzei and Noble [96], the corporative strategy is in charge of determining which data must be collected and analyzed, becoming a key factor for the correct decision making. For Dolphin and Fan [97], when formulating corporative strategies and the public relations have become in a function more and more important in the business organizations. Corporative communication managers are in charge of examining the impact and formulating the strategy [98]. For diversifying organizations, each division will have its own strategy that defines the products or services provided, the clients they want to reach, and so on.

4.3. Business Strategy. The strategy at business level generally is the same that the corporative strategy of the organization. Action plan for the small organization with only one line of business or the big organization has not diversified in different products or markets. The business strategies have potential to make an impact of first order about the risk of financial accident, a direct economic consequence for the owners, and investors of the companies [99]. These strategies are approaches and measurements created by the administration with the aim of producing a successful performance in a specific business line. The main importance of the business strategy consists on how to create and reinforce the competitive position of the company on a long term in the market. According to Bentley et al. [100], different authors provide typologies that describe how companies compete in their respective market environments. Porter [28] describes the business strategies in terms of leadership in costs and differentiation of products; March [101] in terms of exploration and exploitation; Treacy and Wiersema [102] in terms of operational excellence, leadership of product and trust with the client; Miles and Snow [103] and Dekoulou and Trivellas [104] in terms of innovation to identify and explore of new products and market opportunities; and Quezada et al. [105] they describe a methodology to formulate business strategies in small and medium manufacturing companies. These authors evaluate and generate action plans to improve the competitiveness, taking into account the owner preferences.

When an organization is in different business, the planning can be facilitated by creating a strategic business unit (SBU). SBU represents a unique business or a group of business related, for which is possible to formulate a common strategy. Each SBU will have its own distinctive mission and different competitors; this allows it to have an independent strategy from the other business of the organization.

4.4. Functional Strategy. For Dubey and Ali [106], this strategy is close to the definition of processes and actions, that is, it responds to how things must be done or how must be used and applied to the resources. The functional strategy depends and must be well defined and aligned with the corporative and the business strategies. According to Sharma and Fisher [107], the main types of functional strategies are: production strategies [108], I + D strategies [109], marketing strategies [110], human resources strategies [111, 112], technological strategies [113], organizational strategies [114], and financial strategies [115]. It is considered that the production strategy has been the most effective in the past and will continue to receive the maximum priority in the next years. In general, continuing with the order of importance are the technological strategy and the human resources strategy. The I + D strategy is the second highest in importance in the last few years.

Table 5: Types of organizational structure.

Structures	Advantages	Disadvantages
Linear: companies which dedicate to produce one or few products in a specific market, generally the owner and the manager is the same person	Allows to gather several experts in a team; helps to mitigate conflicts between areas; increases motivation and commitment; it is oriented towards final results; identification of responsibilities of each boss; and it is fast and dynamic, low cost, close relationship with subordinates.	Rigid and inflexible; lack of flexibility to adapt to the growth of the company; indispensable hierarchy levels and difficult to replace if it is necessary; and little specialization of staff due to the fact that they are derived to several duties.
Matrix: grouping of materials and human resources available in projects, creating teams with members of various areas looking for a common objective. The employees within the matrix have two bosses; a boss of function and the boss of the project	Allows to gather various experts in a team; helps to mitigate conflicts between areas; increases motivation and commitment; improves flexibility and communication, coordination and communication; identification of responsibilities of each boss; allows more efficiency in the use of resources.	Not all the companies can apply it; it requires a lot of balance, capital, coordination, and processing of information; conflict of authority; possibility of disunity between the command; stress among their members; high bureaucratic and operation costs; requires an effective manager in human relations; and scarce definition of priorities and use of resources.
By departmentalization: works through the departments with different functions. (1) Function of the company: is to group the activities according to the functions of a company: production, sales and finances. (2) By product: is to group the activities according to products or line of products, especially in big companies of multiple lines. (3) Territory: is to group activities by area or territory, is common in companies that operate in wide geographic areas. (4) Group of clients: is to group the activities which reflect a primary interest in the clients.	(1) Clearly identify responsibilities; facilitates mutual support; follows the principle occupational specialization; and it widens the training. (2) Pays attention and effort in the product line; allows the growth and diversity of products and services; improves the coordination of functional and activities, places the responsibility of the utilities at a divisional level. (3) Adaptation to the zone; more control; fast decisions; gives importance to the market and local problems; and improves the coordination of the region. (4) Encourage the approach in the needs of the clients; specialized sellers; decrease in costs; and develops experience in the areas of clients.	(1) It diminishes importance to the general objectives of the company; it reduced the coordination between functions and has slow adaptation to new conditions. (2) Requires staff with management skills and makes control more difficult for senior management. (3) Makes integration difficult between the different geographic divisions and trend to discriminate between the geographic zones in relation to the matrix house. (4) It difficulty the coordination between departments; the group of clients cannot always be defined and requires managers and expert staff in clients problems.
Circular: the authority levels are concentric integrated by a central square around which are the subordinates. In each one of these circles, are placed the immediate bosses and are linked to the lines that represent the channels of authority and responsibilities.	Points very well the importance of the hierarchic levels; eliminate or decrease the idea of the level of status; and allow more number of positions by level.	Sometimes the organization chart can be confusing and difficult to read; difficulty adding levels where there is only one official and force the levels too much.
Hybrid: this structure gathers some of the important characteristics of the previous structures. Combines the characteristics of diverse approaches adapting them to the strategic specific needs and using the advantages of the different structures. This type of structuring is mainly used when companies grow and have several products and markets.	Facilitates adaptability and effectiveness inside the divisions of products and efficiency in the functional departments; good alignment between product and corporative objectives; and effective coordination of divisions, department and zones.	Accumulation of corporative personnel to supervise divisions; generation of indirect administrative costs; loss of approach in the market and conflicts between the corporative personnel and the divisional.
Monofunctional: the authority concentrates in one person or group of persons who make decisions.	Low maintenance cost; clear accounting; management; head of production; and supervision.	Need of a good manager; little planning; little control and without operative levels.
Hierarchic: also known as functional departmentalization, represents the structural organization.	Well-defined chain of command; defined patterns of advance; staff specialization; general manager; manager assistant; submanagers; heads; and supervisors.	Few flexibility; communication barriers; and organizational disunity.

Table 5: Continued.

Structures	Advantages	Disadvantages
Decentralized: evolution and variation of hierarchic, the decision making is entrusted to a plurality of autonomous divisions with base on lines of products and/or territories, leaving the strategic decisions to the highest levels and the tactical decisions to the autonomous divisions.	Approach of the senior managers in key decisions and training of low level managers.	High level of bad decision making by the managers and little control of senior managers.
Not pyramidal: are based on matrices that start vertically from the authority and the horizontal line of responsibility on a specific project; in the intersection of the lines, it gives a contribution or support of a functional character.	Delegation of responsibilities to the employees; improves their motivation; decision making by the people with greater knowledge of the area; and supports the senior manager to the middle managers and the operatives.	The structural incompatibility with the traditional form; unprepared employees slow down the development of the company; and ignorance of the senior manager about the operative part.

4.5. Operation Strategy. Within the two functions is the configuration of a reference framework for the planning, the control of the production and fixation of guidelines to evaluate the contribution of the operation management to the general objectives of the company. The operation strategy starts from an analysis of the environment, the market and the competitors, as well as a study of the available internal resources, to fix objectives and plans of route. The corporative values serve as guide when planning the operation strategy. The final objective of the operation strategy is to find competitive advantages that clearly difference the company from its competitors [116]. It is that the value added to the product or service offered justifies a higher price in the final product that the customer is not only willing to pay, but satisfied to do it. This advantage must be sustainable overtime and difficult to imitate, among other qualities. The main responsibility of this strategy is delegated to the director of the operations area, subject to revision and approval for administrators of higher rank (general director or directive board). According to Wheelwright [117], it is necessary to design and implement operation strategies coherent with the business mission, always supporting the corporative objectives [118]. This strategy must provide the objectives of production to achieve competitive advantages, focusing in a uniform decision making model within the category of the key resources of production [119]. Moreover, to announce the way in which the business units develops or deploys the production resources [120].

Platts and Gregory [121] emphasize in the realization of manufacturing strategies, following three aspects of the process that include: design, development, and implementation of the production strategy. Platts [122] suggests an approach based on the audit to develop the production strategy. This author describes three stages for the formulation of this strategy: creation of the process, tests, and adjustments [123]. Table 6 classifies the fifty-two studies categorized in Table 1 (strategic creation and organizational structures), taking into account the phase of the strategic analysis to which the research belongs to.

5. Formulation of Strategies

The main thing is to detect if there is or not a strategic problem or also called strategic GAP. There is a strategic GAP when the objectives set forth in the future cannot be achieved with the current strategy. According to Chang and Huang [124], the SM process consists of three stages: formulation of strategies, implementation of the strategy, and evaluation of the strategy.

In order to generate strategies, a previous analysis of the organizations that evaluate the definition of goals, the analysis of the situation and the planning must be carried out. Any company, regardless of the size, kind of industry, business segment, or country where its activities are developed, must have a process that allows the disposition of a methodology to formulate strategies. According to Sadler [125], this methodology initiates with the formulation of the strategic planning (FSP), defined as the way to diagnose and analyze the current competitive position and strategic problems that are affecting the company. FSP must be the guide to visualize what is wanted to be achieved and how the companies will achieve it. A correct FSP must start by identifying the current competitive position and market of the company, which allows guiding in a better way the destiny of the company. According to Masoud [126], through the FSP, it is possible to identify the areas that require improvements in its strategies and, at the same time, align them with the functional competences and compare them with the initial strategy, if it exists.

On the contrary, Mintzberg et al. [15] state that strategies based on planning, ignore the fact that these can come from the interior of an organization with no formal plan.

For Van der Kolk and Schokker [127], the control of management are all the guarantees that directors must give to ensure that the behavior of the employees is consistent with the objectives and strategies of the organization; this definition is built based on what is said in [128, 129]. In FSP, the different manager hierarchy and the management control system (MCS) have a considerable influence. In the first stage of the discussion, the strategy is formulated by the senior managers on behalf of the owners, based on the consideration of the resources and an evaluation of the internal and external environment in which the organization competes [47]; the middle and lower managers are restricted to the implementation of the strategy. The function of MCS is to support the implementation of the strategy proposed by the middle and lower managers. On the contrary, [130] states that the

Table 6: Classification of investigations - strategic creation and organizational structures area.

Environments	Phases of the strategic analysis				
	Entry	Analysis	Exit	Qualification of alternatives	Evaluation and decision
Politician and decision making	[67, 117]	[69, 90]	[76, 87, 112, 118]	[85, 88]	[68, 70, 81, 84, 86, 110]
Market and technology	[107, 119]	[61, 79]	[66, 96, 109]	[63, 104, 108]	[65, 89, 95, 99, 100, 105, 113]
Cognitive and normative environment	[62, 80]	[101, 106, 111, 123]	[74, 114, 122]	[59, 78, 92, 121]	[64, 72, 73, 75, 77, 97]

Note: entry: summarizes the initial data and poses the strategic position of the company and products. Analysis: integrates external and internal factors and poses the strategic alternatives. Exit: consolidates the strategies considering their technical feasibility. Qualification of alternatives: meet the condition of feasibility and desirability. Evaluation and decision: choose strategies that generate value to the company.

strategies must not necessarily be formulated by the senior managers but initiated by the lower levels of the organizations; this type of strategy is known as emergent. Mintzberg [131] states a form to classify strategies, which identifies planning

(i) Strategy as a plan: marks the direction or course of action in the future. Those are guides to address a specific situation. These strategies have two essential characteristics: they are elaborated before the actions in which they will be applied. They are developed consciously and with a specific purpose.

These can be general or specific.

(i) Strategy as an action guideline: type of maneuver to beat rivals in competitive situations or negotiations. The real strategy that is taken as a plan is the threat not the expansion [132].

(ii) Strategy as a pattern: it marks a constant behavior on time. The strategy is a model, especially a pattern in a flow of actions. It allows to know how to establish the specific directions of the organization; a definition that covers the behavior we want to produce is required.

(iii) Strategy as a position: it is a means to place the organization in a competitive environment. It looks towards the outside looking for placing the organization in an external environment in concrete positions placing determined products or services in particular markets.

(iv) Strategy as perspective: it is particularly inherent way of industrial organizations in their way of perceiving the world; it looks towards the interior looking for ways in which things are carried out in a company. Just as the personality type defines the behavior of the individuals, the type of strategy defines the behavior of the organization.

The strategic formulation process continues with the implantation, evaluation, and control. Even the best strategies could not reach success, if the administration fails, either when implanting them or when evaluating their results. For David [133], SA is a clear and practical approach for formulation, implementation, and evaluation strategies, which in turn are subdivided in different stages and activities, all pointing to the attainment of the organizational objectives, by means of the obtaining of competitive advantages. Thompson and Strickland [134] state that the SA model has a fundamental purpose to convert the administrative guidelines of the strategic vision and the mission of the business in indicators of specific performance, in results and consequences that the organization wants to achieve. The administrators can have a follow-up of the progress of the company through the establishment of the objectives and the measurement of its success or fail at achieving them. Hill et al. [71] propose a model focused in medium and big companies that compete in a diversified industry or of one business. These authors expose that the strategy is the result of a formal process of planning and the most important role in this corresponds to the senior manager. The strategic managers are in charge of identifying the strategies, as well as to create them starting from a set of elements that are obtained as steps of this model. In Figure 1, the fundamental steps for the strategic formulation are described.

For the so-called implementation of the strategy, the capacity of the organization must be assessed; the strategy is linked to the operations and people who are going to put the strategy into operation, synchronize the people and their various disciplines linking the rewards to the results.

5.1. Methods for the Strategic Formulation. The techniques for formulating strategies can be integrated into a three-stage framework for decision making. These techniques can be applied to organizations of all types and sizes and can help strategists to intensify, evaluate, and choose strategies.

5.1.1. Stage One or Stage of Inputs. Summarizes the basic information that must be taken to evaluate all strategic factors, in order to detect and prioritize according to the levels of importance and significance [135]; according to Azarnivand and Banihabib [136], the techniques of this stage include:

(1) Internal Factors Evaluation (IFE) Matrix. Tool of strategic analysis that summarizes the internal audit of an organization [137] and evaluate the weaknesses and strengths of the organizational units. IFE offers a diagnosis of all the companies in its different functions [138]. Setiawati and Wahyono [139] propose the design of strategies for the positioning of a

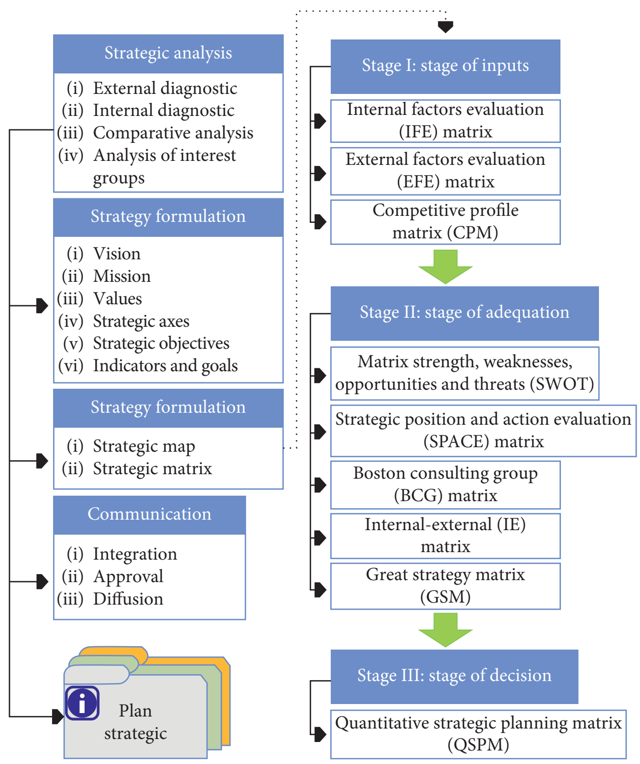

Figure 1: Stages of the strategic formulation.

pharmaceutical product where IFE is developed starting from the functional aspects of the organization.

(2) External Factors Evaluation (EFE) Matrix. It allows to summarize and evaluate external factors (opportunities and threats) that impact the company in a negative or positive way [140]. EFE facilitates the strategists to summarize and evaluate economic, social, cultural, demographic, governmental, legal, technological, and competitive information that could benefit or damage in a significant way an organization in the future [141]. Pratiwi et al. [142] propose EFE with the objective of evaluating the spin-off of a company that dedicates to the biotechnological products in Malaysia, obtaining as result that the company has more strengths than weaknesses (EFE >2.5).

(3) Competitive Profile Matrix (CPM). This matrix can identify the main rivals of a company. The identification of critical factors of success is the most important process for the construction of CPM [143]. Pelaez [144] proposes the use of CPM to explore the competitive environment in three institutes of higher education in Philippines, evaluating strengths and weaknesses of competitors.

5.1.2. Stage Two or Stage of Adequation. It focuses on generating viable alternative strategies, aligning internal and external key factors. The techniques of this stage include:

(1) SWOT Matrix. This matrix allows to evaluate the problems inside and outside the company. It is composed of an evaluation of the internal competences as strengths and weaknesses and the externals competences as opportunities and threats [145, 146]. According to von Kodolitsch et al. [147], the strategists considering the factors contained in the SWOT matrix propose the design of four strategies:

(i) *Strategy strength-opportunity (SO).* This strategy maximizes both internal strengths and external opportunities ("maxi-maxi" strategy); the strategy can be chosen when you have abundant strengths and favorable external opportunities.
(ii) *Strategy weakness-opportunity (WO).* This opportunity-focused strategy minimizes weaknesses and maximizes opportunities ("mini-maxi" strategy); the strategy can be chosen in a precarious situation in which strengths are scarce and threads are increasing.
(iii) *Strategy strength-threat (ST).* This strength-focused strategy maximizes own strengths and minimizes threats ("maxi-mini" strategy); the strategy can be chosen in rescue situations where maximizing the own strengths can be the only way to overcome substantial threats.
(iv) *Strategy weakness-threat (WT).* This strategy minimizes both weaknesses and threats ("mini-mini" strategy); the strategy can be chosen in a complicate situation in which strengths are scarce and threats are increasing.

For Lee [148], the main weakness of SWOT is a general dependence of qualitative analysis that simply classified the importance of individual factors without measuring them qualitatively. Shakerian et al. [149] implement a hybrid model SWOT - Fuzzy TOPSIS, with the aim of evaluating and classifying the internal-external environment and the commercial strategies in industrial organizations. This model achieves a high performance due to the different combined methods. Anguibi et al. [150] propose a quantified SWOT frame that integrates the realization of preferable diffuse linguistic to evaluate the competitive position of the container terminal of Abiyan in Western Africa.

(2) Strategic Position and Action Evaluation (SPACE, PEYEA) Matrix. This matrix was designed by Rowe et al. [151] with the purpose of determining which are the most suitable strategies for an organization in the competitive field, once the external and internal strategic positions are defined. Its structure of four quadrants allows to find out if fan organization is using the aggressive, conservative, defensive, or competitive strategies [152].

The axes of the matrix and the strategic action represent two internal dimensions (financial strength and competitive advantage) and two external dimensions (validation of the environment and industrial power) [153]. Jamali et al. [154] use SPACE to evaluate an Iranian cement company through the four dimensions: industry attractiveness, environmental stability, competitive advantage, and financial strengths. The results showed that this industry can follow an aggressive strategy since it takes advantages of its strengths in the opportunities.

(3) Boston Consulting Group (BCG) Matrix. Henderson [155] aims at helping the companies to position their products or business units in the market, this tool consists on making a strategic analysis of the portfolio of the company based on two factors: growth rate and market share [156]. The matrix is composed essentially of four quadrants, which in turn possess different strategies to develop. Each of the quadrants is symbolized by a caricature. Chang et al. [157] used BCG to analyze the market position and future strategy to improve the potential opportunities of self-connectivity in Asian airports.

(4) Internal-External (IE) Matrix. According to Allen [158], this matrix represents a tool to evaluate an organization, taking into account their internal factors (strengths and weaknesses) and their external factors (opportunities and threats); the IE matrix is similar to BCG matrix since both tools register the divisions of a company in a schematic diagram; this is the reason for which both are known as portfolio matrices [159]. IE is based on information generated by other matrices (IFE-EFE) capturing more information, quantifying them in an index that can be graphed, and locating in one of the nine quadrants of such matrix. Tahernejad et al. [160] propose IE to investigate the strategic factors that have led to the loss of market of a mining company that produces rocks located in Iran.

(5) Great Strategy Matrix (GSM). This matrix made the matrices SWOT, SPACE, BCG, and the IE matrix; GSM becomes an instrument to formulate strategies of an alternative character, placing the company in one of the four strategic quadrants of the matrix [161]. According to Christensen et al. [162], GSM is a tool that is used to evaluate and fine tune the proper choice of strategies for the company or organization. It consists of a Cartesian plane in two dimensions: the competitive position and the market growth; any kind of organization can be placed within the dimensions previously mentioned, according to its conditions. Lee and Lin [163] develop a hybrid method AHP-SWOT, based on the GSM model, to evaluate the competitive position of the containers port in the east of Asia.

5.1.3. Stage Three or Stage of Decision. This stage includes a single matrix.

(1) Quantitative Strategic Planning Matrix (QSPM). According to David [164], QSPM uses the obtained information at stage one to evaluate, in an objective way, the available alternative strategies identified in stage two. QSPM constituted by EFI and EFE is used to determine the strategic position giving a quantitative strategic matrix [165]. David et al. [166] use QSPM two strategies of alternative commercialization. The main contribution of this document was to reveal how and why QSPM can be useful, both theoretical and practical for the design of effective marketing strategies.

Table 7 classifies the thirty-two studies categorized in Table 1 (strategic formulation), taking into account the organizational characteristics and the different typology of strategies.

6. Evaluation of Strategies

According to Uhl and Gollenia [168], the strategic evaluation consists of measuring the impact that has had the strategic planning, opening the possibility of taking the necessary corrective actions. This process serves the organizations for knowing and analyzing if the proposed actions are really directing the company in the right direction. The processes of strategic evaluation are made through the analysis of quantitative and qualitative data [169]. The quantitative approach allows understanding the results in light of the investment and the growth forecasts; the numerical part of the results is measured starting from the key performance indicators (KPI). The qualitative approach allows to understand causes and consequences and interpretation of situations beyond numbers; this type of analysis will serve to know the effectiveness of the strategy and the departments of the organization that need corrective actions.

For the strategic evaluation, according to Cokins [170], all those factors coming from the environment, being threats or opportunities, that directly affect the operation of the strategy and that require an effective response must be considered. To identify these factors, it must be analyzed that the objectives set are the right ones that the observable results are consistent with the initial states, and the analysis of the plans and politics implemented are the right ones [171].

According to [172, 173], the processes to evaluate strategies are specifying the processes and the most important results to supervise and evaluate for measuring them in an objective way; establishing performance standards that make the difference between what is acceptable and what it is not; and compare the real performance with the expected one and apply the pertinent corrective actions [174].

For Rumelt [175], there are four criteria to evaluate a strategy:

(1) Coherence, the strategy must not present goals and politics mutually inconsistent; (2) concordances, the strategy must represent an adaptive response to the environment and the critical changes produced inside; (3) advantage, the strategy must anticipate the creation and/or the maintenance of a competitive advantage in the chosen area of activity; and (4) viability, the strategy must not overload the available resources or create subproblems that do not have solution. The coherence and the advantage are based on the external evaluation of an organization, while concordance and viability are mainly based on the internal evaluation Balanced Scorecard.

According to Hansen and Schaltegger [176], in the year 1992, BSC was presented in the Harvard Business Review, and the creators of this concept are Robert Kaplan and David Norton [177]. Initially, BSC focused on indicators of individual and group performance to measure and manage the implementation of the strategic objectives [178]. Different authors have given definitions of BSC; for Srivastava et al. [179], it is a method to measure the activities of a company in terms of its vision and strategy, providing the administrators a global view of the business performance. For Kaplan and Norton [180], BSC is a system of manager management that

Table 7: Classification of investigations—strategy formulation area.

Organizational characteristics	Typology of strategies: Generic	Intensive	Diversification	Integration
(i) Strict cost control (ii) Frequent and detailed control reports (iii) Structured organization/ responsibility (iv) Incentives based on the fulfilment of strict quantitative objectives	[136, 158]	[124, 147, 157]	[135, 148, 150]	[139, 140, 142–144, 153, 154, 156, 160, 166]
(i) Strong coordination between R&D functions, product development, and marketing (ii) Subjective measurement and incentives instead of quantitative measures (iii) Compensation to attract skilled labor, scientists, or creative people (iv) Ability to make external help to complement skills, knowledge, and abilities	[126, 127, 131, 133, 164, 167]	[129, 130]	[145, 149]	[137, 146, 152, 163]

Note: generic: set of actions to achieve strategic objectives; response of the organization to its environment. Intensive: improvements in the competitive position in relation to existing products (market penetration, product development and market development). Diversification: they represent a growth in economic activity by participating in new or similar businesses (concentric diversification, horizontal diversification, and conglomerates diversification). Integration: reduce threats and seize opportunities from external environments; increase negotiation power with suppliers, distributors, and competitors (vertical, horizontal integration and contractual coordination).

directs attention points in the organization. Its purpose is to translate the strategy in measures that only communicate their vision to the organization.

According to Cooper et al. [181], 75% of the companies that have a formal process of measurement of performance (46% of all the companies surveyed) use BSC as main method of strategic evaluation. Approximately, 60% of the big North American companies and 53% of the companies in the whole world use BSC [182].

The construction of BSC is made in seven steps: analysis of the vision and mission, internal and external analysis of the organization, key factors of the success, relation of the diagram of causes and effects between the factors, definition of the strategic objectives, election of the KPI, and elaboration of the BSC [183].

According to [184, 185], each strategic objective is assigned to one of the four performance perspectives developed for BSC:

(1) Financial: measurements of create value for the shareholder, ("how do we look to the shareholders?"), risk management, and product profitability [186].

(2) Customers: measurements that reflect the impact of the strategy on customers ("how do clients see us?"), market segmentation, customer profitability, customer acquisition, and customer satisfaction [187].

(3) Internal processes: measures of the critical organizational processes for the strategy, ("what should we stand out?"), profitability, distribution, and control of processes [188].

(4) Innovation and learning: measures for training the organization's personnel with the necessary skills ("can we continue improving and creating value?"), technology, human resources, and training [189].

In [190, 191], each strategic objective is measured with key indicators of performance. Table 8 classifies the thirty-seven studies categorized in Table 1 (strategic evaluation), taking into account the perspectives and indicators developed for BSC.

For the development of the BSC model, Kaplan and Norton [212] pose it can be resorted to four phases with their respective products:

(1) Strategic concept—defines the strategic orientation of the organization; (2) objectives—policies and strategic measurements: consolidation of the executive team and the support of managers for the development of the strategic objectives and the key indicators; (3) policies, goals, and initiatives—BSC design finalization, establishment of all the preliminary parameters to be used in the organization; and (4) communication and implantation—integration of the management control and the strategic manager in the managerial agenda of the organization [213] (Table 9).

Table 8: Main BSC indicators and classification of investigations – strategic evaluation area.

Perspectives	Indicators	References
Financial	Economic value added (EVA) Return on capital employed (ROCE) Operating margin Incomes Asset rotation Return on investment (ROI) Relation debt/heritage Investment as percentage of the sale	[169, 176, 178, 181, 192, 193]
Client	Customer satisfaction. Deviation of service agreement Claims solved of the total claims Incorporation and client retention Market	[179, 187, 194–198]
Internal processes	Time of the process cycle Unit cost per activity Production levels Failure costs Reprocessing costs, waste (quality costs) Benefits derived of the continuous improvement Efficiency in the use of assets	[177, 183, 186, 190, 199–204]
Innovation and learning	Skills gap (staff) Development of skills Retention of key personnel Application of technologies and added value Cycle of decision making Availability and use of strategic information Progress in system of strategic information Personnel satisfaction Organizational climate	[171, 180, 185, 188, 189, 191, 205–211]

Finally, BSC transformations focused on the description of the function of the strategic maps, using chains cause-effect among the strategic objectives and how organizations use their leader staff to align the processes and key systems of management with the strategy [192]. Due to the complexity and speed of the changes in the external environment of the industrial organizations, Korableva and Kalimullina [167] propose to use a hybrid model BSC-SWOT for the optimization of the organizations taking into account the basic approaches and the commercial goals of the business.

It is becoming mandatory to consider the sustainability within the strategic decision making [199]. Maintain that the economic development, considering the environmental and social factors, is the new concept of sustainability balanced scorecard (SBSC) [200].

Even though BSC has been widely used for the strategic evaluation, it has some deficiencies in the implementation. For Abran and Buglione [205], obtaining a global BSC performance rating is poor, due to the lack of methods to combine the indicator scores; therefore, different authors propose the use of tools to overcome these deficiencies: Ravi et al. [201] use the analytic network process (ANP) with BSC in the problems of the reverse logistic in the industry of hardware of computers; Leung et al. [206] suggest the use of analytic hierarchy process (AHP) to overcome the deficiencies of BSC; finally, Lee et al. [207] present a combined model fuzzy (FAHP) and BSC to face these problems.

A subject that acquires a lot of criticism in the system of measurement of the performance is its static nature. As a consequence, an increasing current of authors consider that the surroundings of static measurement are not suitable for this time. According to the state by [194–196], the classic BSC, stated by Kaplan and Norton, have deficiencies in organizations where its business has dynamic systems, where the interested parties define the performance in different ways (chains of commercial supply, humanitarian logistics). Norreklit [208] states that BSC has a linear vision of the cause-effect relations among the indicators in the strategic map; moreover, for Brignall [197], the relations cause-effect in BSC are an excessive simplification of the reality since this set of relations is recursive and dynamic. For Linard and Dvorsky [198], BSC presents a lack of clear formalization of the delay in time between the main indicators and the straggled; for Barnabè [202], BSC presents limited support as rigorous mechanism of validation and analysis of scenarios of the relations between the performance indicators, that is, the relations between the KPI in the strategic map do not express the dynamic relations.

This limitation compromises the accuracy of the system of managerial control BSC, making the alignment among the strategic objectives difficult [209]. In this way, the possibility of considering measurement systems of dynamic performances arises, as an attempt of being able to make a better adjustment of the business to the environment reality.

Table 9: Phase of the BSC implementation.

Phases	Products
Strategic concept	Mission, vision, and challenges Opportunities Topics of strategic orientation Value chain Model of perspectives BSC Plan of the project
Objectives, policies, and strategic measures	Strategic objectives Preliminary cause-effect model Measures (strategic indicators) and responsible Strategic vectors and value generators
Policies, goals, and initiatives	Detailed strategic objectives Cause-effect model with vectors and levers Measures (strategic indicators) and responsible Goals by indicator Strategic initiatives
Communication and implantation	Divulgation Managerial agenda of BSC Action plan for noncompleted details Plan of alignment of initiatives and strategic objectives Plan of organizational deployment

[203, 204] propose dynamic BSC models that are supported in the dynamic of systems, as an improvement of the classic BSC model. The dynamic of system is a computer-assisted method that helps to understand the behavior of complex systems, and these techniques use tools such as diagrams of causal cycles, time delays, and stocks [214].

Kaplan and Norton [193] pose that BSC is not only a measurement system of strategic control, able to manage the problem of the implementation of the strategy. However, Simons [215] argues that BSC is a hierarchic falling model that is not rooted in the organization or the environment, so it is questionable as a tool of strategic control and points out that there exists a barrier between the strategy expressed in the plan proposed by the manager and the strategy expressed in the really started actions. Van Veen-Dirks and Wijn [210] affirm that BSC gives an inadequate feedback about the strategy content and does not give enough information about the external surroundings.

The defenders of BSC declare that each business unit must develop and use not only common but also unique measures [193]. However, Lipe and Salterio [211] have found that not all the measures in the BSC are treated equal during the performance evaluation process.

7. Conclusions

The strategies define the efficiency by which an organization reaches its objectives satisfying the needs of the customer, for that great part of the responsibility depends on how well administrators do their work. The skills learned for high direction are essential to assure the maintenance and successful growth of the competitive strengths of the companies in the long term. The top manager is in charge of making critical decisions in the assignment of personnel and financial resources; this kind of decisions determine the fate of the companies and, often, all the country industry.

SM offers companies to add value, create, find, reinforce, and overcome its competitive position, indicating what actions must be adopted to achieve this position. The formulation of strategies allows companies to stand out the addresses or course of action in the future, indicating the action guidelines, marking a behavior in time, defining the internal management of the company with the objective of placing the organization in the best competitive environment to achieve the success.

Business success demands a continuous adaptation of the company to its environment. The competitiveness becomes the economic criteria by excellence to orient and evaluate the performance inside and out of the company. The business success depends in great measure on the kind of strategy adopted by the company; the companies are required to define strategies that allow the access to the actual competitive world, and if these strategies are not accompanied of the management tools that guarantee their materialization, the efforts are useless. There are several strategies and many tools that support each of them, however, the strategist must know and define, based on internal and external diagnostics which are the most indicated strategies that allow to arrive to a competitive advantage over the competitors of the same branch. This paper proposes a guide through a systematic literature review, which allows administrators and researchers to know general concepts and steps that must be followed when doing SM within their industrial organizations, allowing to know their position in the market and from there, to define where they want to go in the future.

Even though it is not a guarantee of success, SA allows organizations to make efficient decisions in the long term, take them to practice efficiently, and start corrective actions as needed. A key for the effective strategic evaluation is an integration of the intuition and the analysis.

Conflicts of Interest

The authors declare that there are no conflicts of interest regarding the publication of this paper.

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