



## STRATEGIC DIAGNOSIS AND AGILE METHODOLOGIES AS A MANAGEMENT AND ORGANIZATIONAL DEVELOPMENT TOOL FOR SMES IN VUCA SCENARIOS

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### Abstract

In the post-pandemic era, it is characterized by the decrease in covid-19 infections and the economic reactivation of the different sectors that make up the economy. In this sense, it is important to identify the responses of the sector of small and medium-sized enterprises called SMEs, given the importance that these have in generating economic and social development. This new scenario with its characteristics and particularities will analyze those strategies that organizations have in a VUCA Environment, an English acronym made up of four terms that are: volatility, uncertainty, complexity, and ambiguity that applied in the field of administration could be useful to recognize the most appropriate strategy that companies could apply. This documentary review document in the field of economic reactivation, validates the importance of the context study, strategic direction, human talent, and agile methodologies as tools for decision-making in SMEs immersed in this type of context.

**Keywords:** Economic reactivation, strategies, VUCA, organizations.

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## **DIAGNÓSTICO ESTRATÉGICO Y METODOLOGÍAS ÁGILES COMO HERRAMIENTA DE GESTIÓN Y DESARROLLO ORGANIZATIVO PARA PYMES EN ESCENARIOS VUCA**

### **Resumen:**

En la era post pandémica, se caracteriza por la disminución de los contagios de covid-19 y la reactivación económica de los diferentes sectores que conforman la economía. En este sentido, es importante identificar las respuestas del sector de las pequeñas y medianas empresas denominadas PYMES, dada la importancia que éstas tienen en la generación del desarrollo económico y social. Este nuevo escenario con sus características y particularidades analizará aquellas estrategias que tienen las organizaciones en un Entorno VUCA, acrónimo inglés compuesto por cuatro términos que son: volatilidad, incertidumbre, complejidad y ambigüedad que aplicados en el ámbito de la administración podrían ser útiles para reconocer la estrategia más adecuada que podrían aplicar las empresas. Este documento de revisión documental en el campo de la reactivación económica, valida la importancia del estudio del contexto, el direccionamiento estratégico, el talento humano y las metodologías ágiles como herramientas para la toma de decisiones en las PYMES inmersas en este tipo de contexto.

Palabras clave: Reactivación económica, estrategias, VUCA, organizaciones.

## **DIAGNÓSTICO ESTRATÉGICO E METODOLOGIAS ÁGEIS COMO FERRAMENTA DE GESTÃO E DESENVOLVIMENTO ORGANIZACIONAL PARA PMES EM CENÁRIOS VUCA**

Na era pós-pandemia, é caracterizada pela diminuição das infecções por covid-19 e pela reativação econômica dos diferentes setores que compõem a economia. Nesse sentido, é importante identificar as respostas do setor de pequenas e médias empresas denominadas PMEs, dada a importância que estas têm na geração de desenvolvimento econômico e social. Este novo cenário, com as suas características e particularidades, analisará as estratégias que as organizações têm num ambiente VUCA, um acrónimo inglês composto por quatro termos que são: volatilidade, incerteza, complexidade e ambiguidade que, aplicados no campo da administração, podem ser úteis para reconhecer a estratégia mais adequada que as empresas podem aplicar. Este documento de revisão documental no domínio da reativação econômica valida a importância do estudo do contexto, da direção estratégica, do talento humano e das metodologias ágeis como ferramentas para a tomada de decisões nas PME imersas neste tipo de contexto.

**Palavras-chave:** Reativação económica, estratégias, VUCA, organizações.

## **1. INTRODUCTION:**

Nowadays, the processes developed within organizations have been subject to constant changes due to the way the environment varies due to the presence of internal and external factors. This type of scenarios affected by situations of uncertainty and volatility affect the decision making process and have become part of the normality (Johansen, 2012) also considering that the outlook for the future is not seen as favorable. Enumerating different reasons that support the above are associated with the advancement of technology, the diverse cultures that converge in human talent and the quick responses to problems of the internal and external environment (Burchardt and Maisch, 2019), leads this to companies making decisions that guarantee their permanence in these scenarios of constant changes.

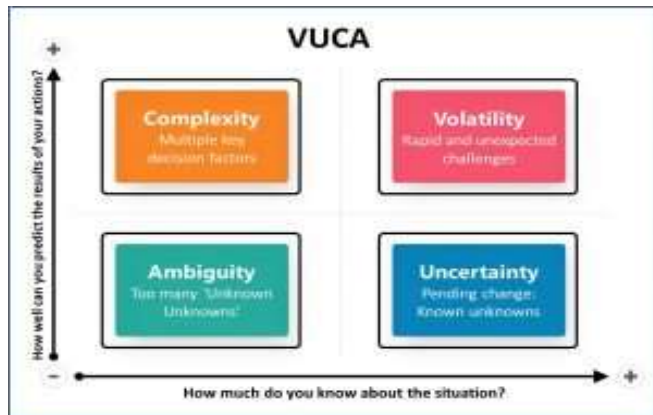
The SMEs have relatively flat work systems, with few options for improvement, used to traditional work, little innovation, and delayed decisions, which could cause little interest in current and new clients. Given the above, it is considered peremptory the alignment of all areas of the company to manage a change of strategy that helps to face the changes of the environment through teamwork, leadership, discipline and a

good disposition to face the current environment (Giones, Brem and Berger, 2018).

## **2. THEORY REFERENCES:**

One of the aspects to be considered in the research and which is established as the main factor of analysis in the process of economic reactivation, is the uncertainty experienced in terms of the external environment due to its VUCA characteristics, the term describes volatile and complex scenarios that make decision-making difficult given the four characteristics that identify them, generating difficulties in the choice of strategy and the behavior of individuals for their operationalization (Diaz, 2021). The difficulty of these scenarios given their volatility challenges managers and executives in terms of decision making given that the situations of the environment are presented as interdependent, interrelated, adaptable in the passage of time among other aspects (Torralba, 2019). The following figure 1, explains the VUCA tool in more detail:

**Figure 1.** Conceptual Matrix about VUCA.



Source: <https://www.changeandstrategy.com/leading-in-a-post-brexit-vuca-world/vuca/>. Available: <https://www.changeandstrategy.com/leading-in-a-post-brexit-vuca-world/vuca/>.

This new environment that emerged with the COVID 19 pandemic is characterized by uncertainty, complexity and ambiguity, and therefore establishes new proposals and perspectives to face it from a vision of a new challenge and not to face it as an adversity. Benner and Lemoine (2014) propose VUCA environments as a matrix where two axes converge; the first one associated with the knowledge of the situation of the environment and the second one what the author calls predictability "degree of certainty of the outcome of the strategy and action plans" that you develop.

George (2017) considers that traditional management techniques and methodologies do

not fully cover the amount and complexity of the changes that occur because of the above, executives and managers should lean even more towards foresight and mitigate the use of strategic planning.

Regarding Nandram & Blindish (2017) state that these are a challenge for companies since they allow them to identify new strategies developed through shared leadership and a collaborative culture.

### **About the strategic planification**

According to Tarzijan (2008), the historical conception regarding the development of the strategic planning concept is analyzed from four fundamental items. The first historical milestone dates back to the 1920s called financial planning, the analysis of the second milestone corresponds to the development of different strategies that sought to ensure the continuity of the organization in the long term "long term financial planning", stage three has as its main objective the analysis of the company as a whole as well as the environment, which is known as unified strategy (Gómez et al., 2020).

Tarzijan (2008) states that the fourth milestone contains a series of essential characteristics such as knowledge and organizational learning, as well as the internal and external diagnosis, the economic sector in which the business is developed and the competitive position of the

organization in it. The organizational diagnosis (internal and external) is developed by analyzing strengths and weaknesses, as well as opportunities and threats. Several authors provide different methodologies, tools and instruments that help in the elaboration of the organizational diagnosis and the generation of contingent actions, among which are Ansoff (Ansoff matrix), Porter (five forces model), Schwartz (scenario analysis), Andrews (SWOT matrix), among others.

With respect to the strategic management model or the logical sequence for the implementation of strategic planning at the organizational level, different authors propose it from three fundamental stages such as formulation, implementation and follow-up or control.

### About the foresight.

The study of foresight has awakened greater interest in governments, states, companies, managers, academics and consultants in general, given the changing environments and uncertainty as a fundamental characteristic of these. For its study, two lines of thought can be distinguished, namely the French and the North American schools; the first with greater acceptance and influence in Latin American countries and part of Europe, commonly known as strategic foresight,

and the second, the North American school of great importance for the Anglo-Saxon world, establishing its theories towards what is known as futurology. Lora Guzmán, H & Jaraba Narváez, C.A (2018).

Foresight or planning based on the creation of scenarios originates from the 40's own of the Second World War and from the military field, as a managerial tool dates back to the 50's given the contributions of Kahn (Chermack, 2001). Theoretical models were later developed by Dubin, Lynham and Van de Ven, among others (Chermack, 2005) (see Table 1), the most popular being the one developed by Dubin, given his analysis of the environment for the development of a hypothesis (Storberg-Walker, J. 2003)

**Table 1.** Methods who contributed in the construction for the theorization of scenarios

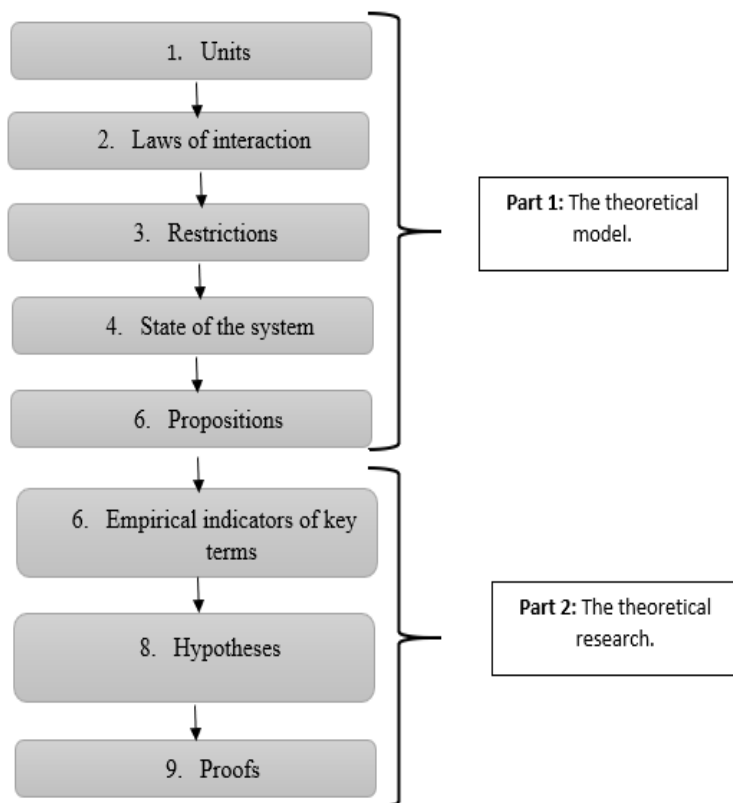
Method	Authors	Year
Method for theoretical development in 8 steps	Robert Dubin [17]	1969
General method	Susan A. Lynham [18]	2002
Diamond model	Adrew Van de Ven [19]	2003

Source: Vergara et al (2010). La planeación por escenarios:

Revisión de conceptos y propuestas metodológicas.

About Dubin's Method, the following figure 2, explains each of the parts with their corresponding phases for the development of the proposal indicated.

**Figure 2.** Dubin's method for theory development in eight steps



Fuente: Vergara et al (2010a, 2014b). La planeación por escenarios: Revisión de conceptos y propuestas metodológicas.

On the other hand, authors state that scenario planning is a constituent part of strategic planning, sharing ways of working, methods and tools that contribute to the management of uncertainty in future scenarios. Lingreth (2003) Godet (2003) Gale (2010). From a broader conception of the

concept of scenario planning, authors such as Peterson, Carpenter and Cumming (2003) propose the interpretation and analysis of scenarios and their different edges as a way to explore and mitigate uncertainties of the company for relevant decision making. this possibility of establishing different future options in which their uncertainties are observed is one of the most important exercises when developing a scenario. Ringland (2003).

Taking into account the alternative strategies and the different tools used in the management of the manager in VUCA environments in markets and economic sectors, companies aim at the assessment and choice of a strategy that allows them to better face the changes supported by technologies, self-managed work teams, and the implementation of prospective studies (Del Río-Cortina, 2021). For Mintzberg, strategy is a guideline that unites the company's goals, policies and objectives and establishes the logic in which actions are sequentially operationalized to achieve what is desired (Labarca, 2008). The author divides the term into five aspects that he considers fundamental to the strategy as plan, action guideline, perspective, position and pattern (Briola, 2007).

Briola (2007) based on the aspects considered by Mintzberg deepens the concepts in the following

way strategy as a plan denotes a series of steps to follow and achieve particular objectives, as a pattern of action development of actions to get ahead of the competition. Establishing a strategy as a pattern implies the path or route followed by the company in the environment in which it interacts; using the term as a position allows to define the competitive profile of the company in the industry and in the competitive environment in which it operates and finally the strategy as a perspective is the subsequent positioning of the organization in its competitive environment.

One of the most widely used tools in the creation of scenarios is known as the Schwartz (1991) axes, a well-known futurist from the United States. According to the methodology for the use of the tool, the first thing to do is to make a Cartesian plane; the vertical axis is called the axis of importance and the horizontal axis is called the axis of uncertainty. The intersection of both axes denotes four quadrants (++,+,-,-, -+) each with its own characteristics that describe the possible scenarios for an organization

### **Strategy towards human talent management.**

The influence of technology in the period of knowledge management as a result of changes in the world economy, globalization and VUCA

environments lead organizations to establish differentiating elements to increase their competitive advantage. Due to the above, human talent continues to be considered the most important asset in companies and the main generator of competitive advantages Lora, H., Castilla, S. and Góez, M. (2020). Dabbah (2003) defines globalization as an interaction of economic links between two countries establishing a series of steps that facilitate a growing integration of their economies, generating interdependence in aspects such as economic, political, social and cultural.

Taking into account this interdependence, companies are forced to develop different ways of working accompanied by emerging strategies and thus identify competencies at the business level to ensure the continuity of the company in this type of environment, which is why it is necessary to improve processes and procedures to improve the quality of the products offered in the market (Miranda, 2012).

Competency-based management promotes a change in the administrative and human talent management processes considered as traditional. The administrative direction and management becomes an exercise of identification and development of attitudinal and aptitudinal

competencies that are in line with the strategic objectives of the company Lora, H., Castilla, S. and Góez, M. (2020).

Given the above, competency management is defined as a process (Rubio, 2015). The UPF organization (Barcelona Scholl of management) defines this management model as "a process that facilitates the identification of people's capabilities that can be measurable and identifiable to perform a position" Miranda (2012) considers that competency management is associated with organizational behavior that consists of "identifying abilities, skills, knowledge and attitudes of human talent to achieve the company's goals."

Unlike the previous authors, Alles (2002) define competency management as part of the strategic direction, establishing it as "an administrative model that gives companies the capacity to align their objectives with the organizational strategy and the human talent that integrates it" as a management method, it is intended to evaluate the positions with the competencies to be developed by the employee (generic and specific) as well as the skills necessary for the best performance of the collaborators.

## **About Agile Methodologies**

The beginnings of strategic planning date back to the 1960's with Chandler, Andrews and Ansoff. Managerial management was based on anticipating the requirements of the operation through planning that was expected to work. the administrative exercise was evaluated based on the presentation of reports, diagrams, among others (Nishijima and Dos Santos, 2013).

However, faced with the different dynamics presented by VUCA environments organizations using traditional methodologies respond more slowly to corrections or adjustments in the following stages (Göksu, 2018), in addition, those companies working under the project methodology use a lot of documentation at the beginning of the project which can generate problems in a dynamic environment (Collyer et al., 2010),

Agile methodologies initially became known in software development and were documented in the Agile Manifesto (Beck et al., 2001) establishing four values and twelve principles of vital importance for its development. Since its birth eta methodology has been studied for its adaptation and use in organizations; de Souza Bermejo et al. (2014) identifies the profiles of companies with this type of models and considers that they have higher achievements, self-managed teams, better



communication systems with customers and a dynamic organizational culture. Pikkarainen et al. (2012) managed to raise the key success factors and how this type of agile models should be implemented in software companies, emphasizing the process and implementation.

Emphasizing the implementation of the methodology in SMEs, Yepes, Pardo and Gómez (2015) consider that the possibilities of failure of this type of models are related to lack of commitment, poor understanding of the methodology, empowerment of staff. given the above, they recommend achieving an organizational culture that fully internalizes the methodology in the organization and work teams, adapting them to the characteristics of the environment.

### **3. CONCLUSIONS**

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VUCA environments have become a challenge for small and medium-sized industries since they imply a dynamic of changes within the organization, as well as decision making in order to maintain their levels of competitiveness and productivity in the industry and the economic sector to which they belong. These new scenarios lead to understanding a series of factors that have an impact on the business environment and the

internal dynamics of the organization. SMEs in the manufacturing sector are much more affected by the changes in the globalized environment given the effects of the COVID-19 pandemic on the world economy, which leads to the definition of a series of strategic actions linked to a much more dynamic leadership, the creation of self-managed teams, knowledge management, as well as strategic direction and foresight tools. In the interviews conducted with managers of small and medium-sized industries, a lack of knowledge of VUCA environments and foresight tools and scenario analysis was observed, which means that the action plans established to relate to the environment do not make any difference, given the new characteristics of uncertainty in the new competitive scenarios.

The implementation of agile methodologies in SMEs presents some gaps within which the organizational culture, resistance to change, little management commitment are identified. It is concluded that before starting the implementation of an agile methodology in an SME, the organizational structure should be adapted to facilitate the implementation of the model.

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