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Analysis using the intelligence cycle and the Hoshin Kanri methodology in an organization

Análisis utilizando el ciclo de inteligencia y la metodología Hoshin Kanri en una organización

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Abstract

The lack of planning is not only a local problem, but of a global nature, the consequences reflect the lack of monetization, growth and strategic alliances that allow the expansion of them. This research proposes to develop the intelligence cycle and the Hoshin Kanri methodology in an organization as a factor of change in Mexican organizations. A current problem in every organization is the lack of planning, it is not a local problem but a global one. Taking into account the following factors such as: Returns and delays in delivery within the organization, the results are encouraging, going from 27% to 12% of returns and from 26% to 10% in the reduction of delays. Through the cycle (PDCA) the actions will be fed back together with senior management seeks to feed back the actions together with the management through a strategic approach and inclusion of all the personnel of the organization.

Intelligence cycle, Hoshin Kanri, PDCA

Resumen

La falta de planeación, no es un problema solo local, si no de índole mundial, las consecuencias reflejan la falta de monetización, crecimiento y alianzas estratégicas que permitan la expansión de las mismas. La presente investigación propone desarrollar el ciclo de inteligencia y la metodología Hoshin Kanri en una organización como factor de cambio en las organizaciones mexicanas. una problemática actual en toda organización es la falta de planeación, no es un problema local sino de índole mundial. Teniendo en cuenta los siguientes factores como: Devoluciones y retrasos en la entrega dentro de la organización, los resultados son alentadores, pasando del 27% al 12% de devoluciones y del 26% al 10% en la reducción de retrasos. A través del ciclo (PDCA) se retroalimentarán las acciones en conjunto con la alta dirección busca retroalimentar las acciones en conjunto con la dirección mediante un enfoque estratégico y de inclusión de todo el personal de la organización.

Ciclo de inteligencia, Hoshin Kanri, PDCA

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Introduction

Through the knowledge and development of the functions obtained in different departments of design, planning, production and quality, it has been observed that organizations are focused on their transformation processes and on providing quality services.

This research develops the Hoshin Kanri (HK) and the intelligence cycle as a proposal for continuous improvement in an organization dedicated to the manufacture of boxes for medicines, currently the customer portfolio increased from 60% to 95% which require that the products produced meet quality standards among other factors such as: delivery time, standards and specifications. Forcing the quality department to generate strategies that allow us to find a way to satisfy the customer through our quality processes. The problem of any organization lies in the focus on its production processes rather than on quality. Each department has individual objectives to meet without a strategic vision and without a focus on quality. One of the needs of this organization was to meet delivery dates in order to gain prestige with customers, reducing their complaint levels; however, the lack of proper planning caused incomplete deliveries and increased the number of rejections.

The overall objective of this research is to design and implement a strategic planning model including the intelligence cycle within the Hoshin Kanri (HK) methodology, which achieves that the individual objectives of each department are unified to deliver on time and quality.

The proposal based on strategic planning including the intelligence cycle within the Hoshin Kanri (HK) methodology will allow a total quality system within the organization.
The four phases of the intelligence cycle are: direction, procurement, elaboration and dissemination as referenced by (Jordán Enamorado, 2016). The importance of probability in any teaching-learning process in the innovation of any system as a learning process (Rueda, 2019). However, there are configure strategic organizational thinking in the field or in practice for decades makes it increasingly complex (Sanabria, 2004).

One of the characteristics of the HK and its elements that distinguishes it from conventional strategic planning, makes mention of an expansion from seven to ten steps (Jolayemi, 2008). The HK methodology refers to the following points: plans are developed more systematically, progress of plans is carefully monitored, changes are made to plans when necessary, planned objectives are achieved, the planning process is standardized, continuous improvement is made, and finally organizational behavior occurs within organizations (Kenyon, 2007). One of the combinations of the HK methodology in conjunction with the balanced scorecard, its objective is to propose a model for the combination of these long-term organizational activities as a framework for a higher level to manage the strategic fit of top management with day-to-day management (Witcher B. and., 2007). Hoshin Kanri could be successfully used to implement strategies and improve top-down matching, which must be achieved so that experts are adequately prepared and frontline staff are engaged in daily continuous improvement efforts (MHA., 2020).

Currently the literature highlights the lack of standards and success stories in lean implementation, organizational culture and cultural context of workers could affect the way HK and lean are performed (Gubinelli, 2020). Long-term strategy and effective planning is critical to create an organizational strategy and vision. Lean and Six-sigma are powerful tools for continuous improvement that are widely used to increase quality, productivity, profitability and competitiveness in today's marketplace (Cudney, 2016). The strategic management model proposed by HK proposes to align functions and activities with the most important strategic objectives of the organization (Santos & V., 2022).

The present research proposes six phases of the intelligence cycle: system planning, information evaluation, information gathering, information processing, information analysis and disseminating results in conjunction with the methodology (HK) the results are encouraging for the quality and continuous improvement department of the present research.

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Literature review

One of the works that mentions the strategic model in organizations, Skinner suggests five strategic areas for marketing and distribution: 1) plant and equipment 2) production planning and control 3) manpower and staffing 4) product engineering design; and 5) organization and management, as a strategic model in organizations (W., 1996). On the other hand there are works that refer to performance in SMEs the approach of their hypotheses between the functions of resource management, personnel management in order to prioritize operations in SMEs (B.E. Narkhede, 2012) , one of the works where the Hoshin Kanri methodology is based on the process of continuous improvement provides a link between the strategic intent and its implementation in the daily management within the company (Butterworth, 1999). In the political context one of the tools used is the Hoshin Kanri as a strategic means, setting trends and breaking paradigms between objectives and business process reengineering as mentioned (Inquilino & Roberts, 2001). An approach to the medium and long term policies, the basic philosophy of the company and the quality policy as mentioned in the work entitled Hoshin Kanri a participatory form of quality management in Japan under the implementation of target and catch-ball in top management as referred to (Kondo, 1998). However, strategic planning developed in international organizations such as Hewlett-Packard makes us reflect on the importance of daily management in order to prioritize and adapt decision making in daily work (Barry & Rosie, 2000). One of the following works addressing the topic is Hoshin kanri and critical success factors in quality management and lean production makes reference that strategic planning is a component of TQM/lean production and that its components are found within Hoshin (John, 2016). The balanced scorecard and hoshin Kanri approach as integrative dynamic capabilities potentiate the strategic management process as mentioned in his article Balanced scorecard and Hoshin Kanri: Dynamic capabilities for managing strategic fit (Witcher B. a., 2007). So far one of the articles that includes the circle of continuous improvement is Hoshin Kanri: A Technique for Strategic Quality Management, which refers to business process management, parallel planning and execution methodology with an enterprise-wide approach (Tennant & Roberts, 2011).

The role of strategic planning becomes more important in Japanese industries by simulating the Hoshin Kanri methodology and potentiating strategies in top management as mentioned by (Barnabé, 2017). Any proposal and extension of the Hoshin Kanri (HK) methodology as described in the work Hoshin Kanri planning process in human resource management: recruitment in a high-tech firm, which mentions the importance of strategic management and potentiates its actions for the fulfillment of organizational objectives (Su & Yang, 2015). Through paradigm shifts and a good strategic redirection, the tree (HK) is born, which is based on standardization and learning rates for the generation of Industry 4.0 organizations mentioned in the work The HOSHIN KANRI TREE. Cross-plant Lean Shopfloor Management (Javier Villalba Diez, 2015). The industrial applications of (HK) have had to focus on Japanese organization and is the means by which total quality management (TQM) is implemented (Charles & Paul, 2000).

Total quality management includes, among its most important elements, a planning system. There are different guides to elaborate it, but the one chosen for this study is the Hoshin Kanri model, also known as "Hoshin Kanri Planning System". The intelligence circle is still a valid simplification to explain the way the intelligence function works, however, it is limited in a way that tends to evolve to full intelligence cycle hour which helps to understand more accurately the different phases of the intelligence cycle as referenced by (Viqueira, 2016).

The importance of Hoshin Kanri planning as long as it is accompanied by total quality control as mentioned by (Akao, 1991).
The interest of implementing the Hoshin methodology in the organization is the constant interest of implementing policies that make work in organizations more efficient as mentioned by (Lee, 1998).

The present work highlights an executive management system that allows continuous progress in the organization, through the development of a plan of policies established annually.

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Development

The Hoshin Kanri planning system consists of several stages. The first stage is a review of information from the environment, as well as data from the organization itself. Subsequently, the director develops a set of objectives, strategies and monitoring indicators; finally, the executives at the next level create more specific action plans, as well as how to implement them. In this way, a blueprint is formed that covers the objectives that are circulated from management to employees and their implementation teams.

The first step determines the current situation; this part of the process requires the collection of information to understand the situation in which the company finds itself in order to be able to propose appropriate strategies.

The second and third steps of the process involve the creation of a vision or desired future, identifying its most important elements and using them as a basis for the deployment of objectives and goals.

The fourth and fifth steps help to create a plan based on the company's vision, which is then extended to all levels of the company. The implementation process consists of spreading the proposed strategies throughout the organization. This part of the process is very important, because the personnel at each hierarchical level validate and commit to the objectives and goals defined by themselves.

The sixth, seventh and eighth steps of the process consist of implementing the plan and monitoring it periodically through some indicators; in this part the control cycle is also carried out, at the level of each objective. First, the status of the objective is checked, it is analyzed to assess whether it needs to be improved and the way to do so is established, and finally, the agreed-upon actions are put into practice and the indicators are checked again to verify progress.

Finally, a review is made at the end of the period; in this review, the entire Hoshin Kanri planning process is reactivated. It is important to note that the control cycle is a fundamental part of the process, both for the execution of the system and for the creation of a plan for the following period.

Main elements

To complement the proposed method (Mary Malone, 1995), she points out that the elaboration of this plan requires the participation and collaboration of all the company's personnel, with the following four main elements:

Objectives: Purposes to be achieved, generally of a competitive nature.

Goals: Indicators of the fulfillment of objectives, these must be established very objectively in order to be quantifiable.

Strategies: They describe the procedure and methodology for the fulfillment of goals and objectives.

Measurement of applications: Determine the progress or competence of the strategy in order to be able to qualify the fulfillment of the strategies.

(Babich, 2006) Recommends the use of a format for the elaboration of the action plan, an example is presented below:

Key objective	**Goals**
Description of the main objective	
Estrategias para lograr el objetivo.	
Strategy	**Goals**
Strategy 1	
Strategy 2	
Strategy...	
Strategy	

Table 1 Hoshin Kanri planning form

Competitive intelligence

Part of the essence of competitive intelligence (CI) is scientific and technological knowledge. This is considered as that certain, tangible and demonstrable thought, which is based on the information of the environment and uses it for its benefit.

Definition

According to (Barnabé, 2017), "competitive intelligence is an analytical process that transforms disaggregated competitor, industry and market data into strategically applicable knowledge related to competitors' capabilities, intentions, performance and position."

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Methodology

For (Gregorio, Javier Gil, & Eduardo, 1996) the process to carry out an intelligence system is known as intelligence cycle, which comprises eight interdependent stages.

Planning process. In this stage, the general planning of the program is carried out. Needs, users, objectives, available resources, schedule of activities and people in charge are defined.

Identification and selection of information sources. The most appropriate sources of information to meet user needs and objectives are defined, taking into account available resources.

Collection of information. This must be obtained at a speed that allows generating results within the specified time limit. Likewise, it must be cost-effective and accurate in terms of quality.

Data processing. The information found is debugged. This is done based on the needs and objectives previously set.

It is normally carried out simultaneously with the collection activity and in a cyclical manner, until satisfactory results are obtained, which will be subsequently analyzed.

Analysis. Its objective is to convert the information found into a useful product and concrete application in the company's decision-making process. Together with the collection of material, this stage constitutes one of the basic processes for the creation of intelligence.

Dissemination of results. The choice of the medium to be used for the publication of the results obtained depends on several factors, such as the type of information to be distributed, type of audience, resources and time available. Given the current advanced development in information technology, the alternatives for disseminating results within a company are very broad. Among them, a combination of reports, memos, e-mails, voice mails, telephone calls, meetings or oral presentations can be used.

Decision-making. The results generated must be applied in decision making. The fundamental objective of the intelligence is to obtain a direct benefit for the company by having a positive impact on the decisions made.

Program performance evaluation. At this stage, the objective is to ensure that the system is updated periodically and constantly, since changes are continually taking place in the company and in the environment.

Description of the problem

Customer satisfaction, delivery effectiveness and effectiveness in quality commitments have been deficient, yielding negative results for the organization, since out of 7 customers, two of them have a degree of satisfaction of 50%, the deliveries that were made in one month were 26% late and 27% of these same deliveries were returned; therefore, there is dissatisfaction with the service and/or product provided.

Strategic planning model

This section presents the model that integrates the Hoshin Kanri planning system with the organization's competitive intelligence to generate answers that can solve the initial problem statement.

This proposed model consists of 10 steps that begin by establishing the organization's key objective, then the strategic planning model is run and finally the action plan is created, implemented and followed up to determine whether there are opportunities or threats in the environment.

Integration of the model

To achieve the integration of the model, the following methodology is briefly developed as shown in Figure 1.

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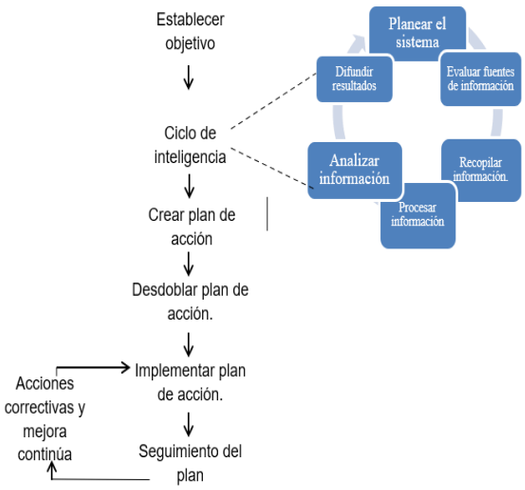

Figure 1 Integration model

Establishing the key objective is the first step. The company's objective was analyzed and its elements were prioritized. In this case it was not necessary to carry out the affinity diagram proposed in the methodology, because the organization is clear about its key objective: to be a highly profitable and productive organization with a high degree of commitment to the customer.

Its focus is on the quality area of the medicine box manufacturing business. Therefore, the prioritization of the elements of the objective is oriented solely towards it. The particular key objective element towards which this strategy is directed is: customer satisfaction.

Planning the intelligence cycle

In this stage, the objectives, resources, chronological planning of activities, the work team and its responsibilities were defined. An affinity diagram was used to determine the key objective, specifically the points that need to be addressed with the intelligence cycle. The result of the application of this tool was as follows:

Goal: Gather information about current productivity rates, as well as customer satisfaction assessments. Specifically, the information sought is:

- Causes affecting productivity.
- Dissatisfied customer indicator.
- Causes of customer dissatisfaction.

Once the objective to be achieved through the intelligence cycle was defined, a work team was formed to carry it out. The duration of the study was 10 days, as described in the following schedule:

ACTIVITY	OCTOBER 1	4	5	6	7	8	11	12	13	14	Responsible
Cycle planning. Identify and select sources of information.											Author, DO Author, DO
Information gathering.											Author, DO, P, JP
Information processing.											Author, DO, P, JP
Information analysis. Presentation of results.											Author, DO Author, DO

Table 2 Planning of the intelligence cycle

The team that was integrated to carry out the application of the methodology was:

1.- Author.

2.- DO-Director of Operations.

3.- P-Production.

4. JP-Planning.

Once the intelligence cycle planning process was completed, the selection, collection and processing of information sources began.

Selection, collection and processing of information sources

For the selection of information, primary and secondary sources were sought. The primary sources consisted of consulting and interviews with experts, in this case the Operations Director, Production Manager, and Planning Manager. The entire intelligence cycle was developed always taking into account their opinions and points of view. For the study, the organization provided information about the main clients for the interviews; it also provided support with other resources such as telephones and computers for information management.

Productivity indices

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For the study, the organization provided information about the main clients for the interviews; it also provided support with other resources such as telephones and computers for information management.

Two types of indicators were determined to determine current productivity. Rodriguez and Bravo (Rodriguez, 1991):

Effectiveness in compliance: through this type of indicator we evaluate the degree of compliance, in terms of the quantity of the product delivered, its general form is as follows:

$$\text{Effectiveness in compliance} = \frac{\text{Actual production}}{\text{Scheduled production}} \quad (1)$$

Taking the history of one month, we have the following information:

The quantity scheduled to be produced in that month was 2,001,000 pieces.

The quantity produced in that month was 1,994,872 pieces.

$$\text{Effectiveness in compliance} = \frac{1{,}994{,}872}{2{,}001{,}000} \quad (2)$$

$$\text{Effectiveness in compliance} = 0.99 = 99\% \quad (3)$$

Effectiveness in delivery: If a product is not finished at the requested time, it cannot satisfy the customer's needs, being the same as a defective product. Therefore, it is important to control compliance with delivery dates. The indicator to evaluate this type of situation in the delay in delivery, its general form is as follows:

$$\text{Delayed delivery} = \frac{No.of\ delayed\ deliveries}{N°\ of\ deliveries\ made} \quad (4)$$

Taking one month's history, we have the following information:

The number of deliveries made in that month was 69.

The number of late deliveries was 18.

$$\text{Delayed delivery} = \frac{18}{69} \quad (5)$$

$$\text{Delayed delivery} = 0.26 = 26\% \quad (6)$$

Customer satisfaction indicators

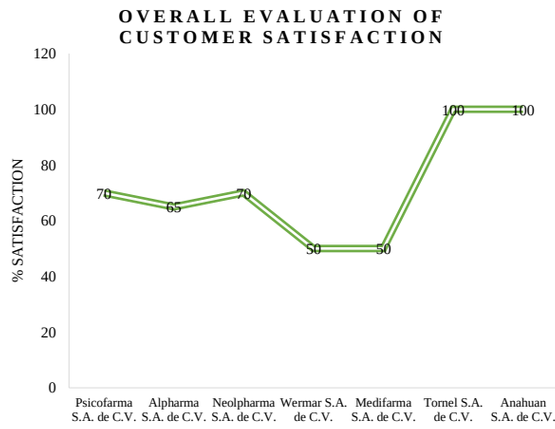
To assess client satisfaction, a survey was conducted in which the client evaluates the service and product obtained on a monthly basis.

Five attributes are taken into account and a weight is assigned to each one; the sum total should be one hundred (100). For each attribute, the client will choose a box that reflects his degree of satisfaction and that will be the value of that attribute. The satisfaction index will result from dividing the sum of values (grand total) by the maximum total as shown in Table 3.

Customer satisfaction					Date
Weight	Attribute	Levels of satisfaction			Partial values
		Deficient	Good	Excellent	
15%	Response to quotations				
15%	Attention received				
10%	Product information				
30%	On-time delivery				
30%	Product quality				
			100%	Grand Total	
Customer satisfaction					
Name and signature of the evaluator					

Table 3 Customer Satisfaction Attributes

It was decided to conduct these surveys via e-mail at the end of each month. Customer satisfaction was evaluated for the last month. The following is the overall evaluation of customer satisfaction.



Graphic 1 General evaluation of customer satisfaction

The instrument was validated with the Cronbach's Alpha reliability coefficient, which evaluated the reliability of the instrument developed, the analysis is shown below.

	ITEMS					
Respondents	**1**	**2**	**3**	**4**	**5**	**SUM**
E1	5	5	5	2.5	2.5	20
E2	5	5	2.5	2.5	2.5	17.5
E3	5	5	5	2.5	2.5	20
E4	5	5	2.5	0	2.5	15
E5	5	5	2.5	2.5	0	15
E6	5	5	5	5	5	25
E7	5	5	5	5	5	25
Variance	**0.000**	**0.000**	**1.531**	**2.551**	**2.551**	
Sum of item variances	**6.633**					
Total variance of the instrument	**15.051**					

Table 4 Respondents' answers

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$$\alpha = \frac{K}{K-1}\left[1 - \sum\frac{S_i^2}{S_T^2}\right] = 0.699 \ survey\ reliability\ coefficient \quad (7)$$

Range	Reliability
0.53 a less	Null reliability
0.54 a 0.59	Low reliability
0.60 a 0.65	Reliable
0.66 a 0.71	Very reliable
0.72 a 0.99	Excellent reliability
1	Perfect reliability

Table 5 Ranges of reliability of the instrument

According to the reliability range and the reliability coefficient given by the survey, the instrument used is determined to be "Very reliable".

Effectiveness in quality commitments

Percentage of returns: This evaluates the proportion of out-of-specification products that reach the client or user and are returned, returned for replacement or, in some cases, discounted or reduced from the service billing. Rodriguez and Bravo (1991) Its form is:

$$\text{Percentage of returns} = \frac{Quantity\ of\ returned\ products}{Quantity\ of\ products\ shipped} \quad (8)$$

Taking one month's history, we have the following information:

The number of deliveries made in that month was 69.

The number of returns was 19.

$$Percentage\ of\ returns = \frac{19}{69} \quad (9)$$

$$\text{Percentage of returns} = 0.27 = 27\% \quad (10)$$

Analysis of the information

In this step of the methodology, the information gathered in the previous stage is analyzed. A SWOT analysis is used to identify the opportunities and threats of the environment, as well as the organization's strengths and weaknesses.

Before carrying out the SWOT, the conclusions of the results obtained in the previous stage are presented:

Effectiveness in compliance

According to the results obtained in the previous stage, it is observed that the degree of compliance is 99%, which indicates that the amount of product delivered has been effective.

Effectiveness in delivery

According to the results obtained in the previous stage, there was a delay of 26% in the deliveries made during the month, which indicates that there is a problem in the production process that lies in deliveries outside the time established by the client.

Analyzing the stages of the production process, there is a bottleneck in the final stages of the process, with the "Eye Inspection" and "Conditioning" departments being the cause of the delay in deliveries.

Customer satisfaction

Analyzing the results of the surveys, which are shown in the graph, it can be assumed that one of the customer's nonconformities is product quality.

This nonconforming product arises from the lack of review by the "Eye Inspection" department because, since there is a bottleneck there, its review is not effective.

Effectiveness in quality commitments

According to the results obtained in the previous stage, it is observed that there was a 27% return rate in the deliveries made during the month, which indicates that there is a problem in the production process that impacts product quality. Once the conclusions of the information processing are established, we proceed to create the SWOT analysis, this analysis was carried out in the process of "Eye Inspection" since this process is one of those responsible for the quality of the product, by performing an inspection of 100% of the material and it is also where the first bottleneck that causes the delay in deliveries is generated.

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STRENGTHS	WEAKNESSES
- Qualified personnel. - Effectiveness in product delivery. - Relatively simple production process.	- Poor communication. - Lack of human resources. - Lack of staff commitment. - Lack of planning.
OPPORTUNITIES	**THREATS**
- Reduced presence in the market. - Lack of client portfolio. - Lack of infrastructure.	- Economic crisis - Shortage of material. - Variations in planning. - Constant increase in costs.

Table 6 SWOT Analysis

With these conclusions in mind, originating from the application of the intelligence cycle, the next step was to present the results to the operations manager.

Results

To present the results of the intelligence cycle, a meeting was held, where the operations manager, the production manager, and some members of quality control were present. In this meeting, each of the points raised in the initial objective of the intelligence cycle were reviewed. In addition, the SWOT analysis was presented, integrated with all the conclusions of the intelligence cycle. In this phase, a brainstorming session was held to evaluate the best way to improve the intelligence cycle. It was concluded that the most important thing is to collect information related to product quality, as well as basic data on delivery delays.

This proposal is considered in the next stage of the intelligence cycle, by making a detailed analysis of the information sought and the benefit it can bring to the planning process.

The next step is to create and unfold the action plan. The objective is to use the SWOT, which was obtained as a result of the information analysis, to create specific strategies that in turn are aligned with the company's key objective. The action plan created is shown below:

Key objective	
To be a highly profitable and productive organization with a high degree of customer commitment.	
Title objective	Objectives
Improve the percentage of effectiveness in the delivery and quality commitments.	Have at least 90% effectiveness in delivery and quality commitments.
Strategies to achieve the objective	
Strategy	Objectives
a. Create two shifts in the Ocular Inspection area.	1. Reduce the percentage of late deliveries from 26% to 10%.
b. Make the target visible in turn	2. Create staff commitment.
c. Assign responsibilities and activities per person	3. Reduce the percentage of returns from 27% to 10%.

Table 7 Action plans for key objectives

Once the key objectives of the strategy were defined, the next step was the deployment of these objectives by the visual inspection department. For this process, a meeting was convened with the director of operations, production, quality control and visual inspection. Subsequently, the implementation of the plan began.

The next step of the methodology indicates that the strategies set out in the organization should be implemented.

A chronogram was drawn up, with all the activities and those responsible for them, in order to follow up on the fulfillment of the objectives. The implementation plan is shown below:

ACTIVITY	NOVEMBER WEEK 1	WEEK 2	WEEK 3	WEEK 4	Responsible
Create two shifts in the Eye Inspection area.					DO
Divide the work by activities and assign them per person.					Author, JIO
Make the goal visible in turn.					Author, JIO

Table 8 Implementation of the action plan.

The team that was integrated to carry out the application of the methodology was as follows:

1.- Author

2.- DO - director of Operations

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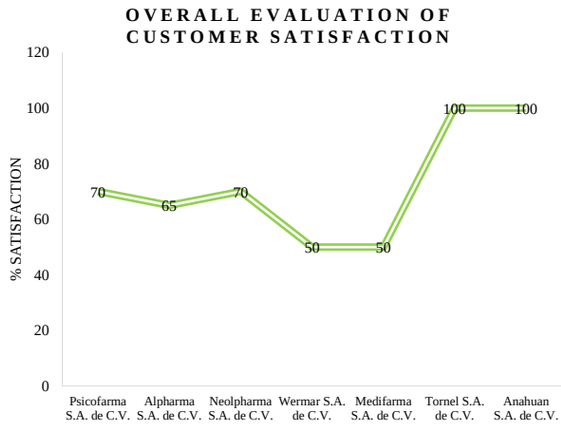
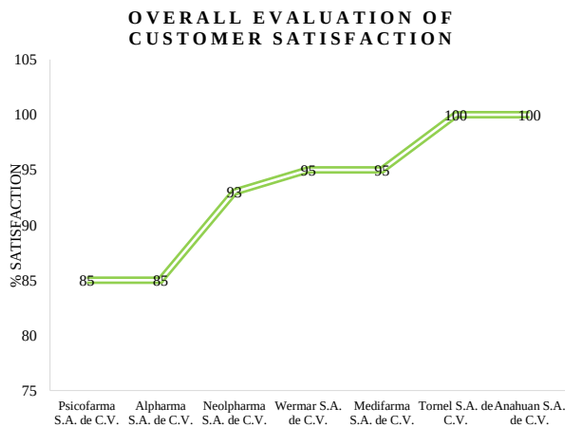
3.- JIO - head of Ocular Inspection

Once the implementation of the action plan had begun, it was necessary to follow it up through the goals set for each specified objective (for this purpose we sent the customer satisfaction surveys again at the end of the month).

It was important to review the results of the November surveys and compare them with those of September. Figure 3 and Figure 4.



Graphic 2 Overall evaluation of customer satisfaction for the month of September



Graphic 3 Overall evaluation of customer satisfaction for the month of November

A comparison was also made of delivery effectiveness and quality commitments.

Taking the historical data for the month of November, we have the following information:

The number of deliveries made in that month was 65. The number of returns was 6.

$$\text{Percentage of returns} = 8/65 \quad (11)$$

$$\text{Percentage of returns} = 0.12 = 12\% \quad (12)$$

The number of late deliveries was 7.

$$Delayed\ delivery = \frac{7}{65} \quad (13)$$

$$Delayed\ delivery = 0.10 = 10\% \quad (14)$$

According to the information obtained and compared with that of September, there was an improvement in terms of quality commitments, from 27% of returns in September to 12% in November, as well as in delivery effectiveness, with 74% in September and 90% in November.

This is the last step of the proposed model. Here additional actions must be proposed to ensure that the organization's key objective is met.

Due to time constraints, this last step could not be carried out. It requires a longer period of working time, so that those responsible for the plan have the opportunity to fulfill their responsibilities.

The development of this method should be resumed every year to define the objectives of the method. However, given the nature of continuous improvement, the action plan can be modified according to the results obtained and the needs that arise during its implementation.

Conclusions

The strategic planning model proposed in this qualitative research case, proved to be an easy-to-apply tool, helping management to deploy its vision and align the team to actions focused on achieving the expected results.

The application of the intelligence cycle in the planning process of the organization, generated great knowledge about the environment, facilitated the collection of information; in addition, it allowed to create and deploy an action plan, according to the key objective of the organization. This action plan, in addition to reaching a high level of detail, was proposed by the entire team. In this way, each objective and goal was developed taking into account everyone's comments and contributions.

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Subsequently, in the implementation of the plan, greater commitment was observed on the part of those involved, because they became aware of the importance of the strategies established to achieve the proposed goals, which was reflected in the following results:

– Decrease in returns for the month, from having 27%, 12% of returns were achieved.

– Increase in delivery effectiveness, from 74% to 90% effectiveness.

Based on the above, it can be deduced that the application of the strategic planning model based on Hoshin Kanri and the integration of the intelligence cycle, as a guide to obtain a clear vision of an organization, results in the effective execution of plans, incorporating elements of improvement and favoring the inclusion of all the company's personnel, helping the organization to consider in an anticipated and more efficient way the events of the environment, to create more competitive action plans not only in the present but also in the future.

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