

Integrated Management System Based on the OHSAS 18001: 2007 and ISO 28000: 2006 Standards for a Logistic Services Company

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Abstract— An industry as relevant as the transport and logistics of complex sectors that can influence the existence and the cost to the final consumer of products and merchandise in the markets globally. From the optimal control and control of all the resources involved and the internal operations carried out in this can the significant economic benefits and the survival of the company and the well-being of the workers, therefore dedicated efforts for the logistic organizations strictly apply the norms ISO 28000 And OSHA 18001, allowing the company to remain competitive and add to productivity requirements as well as security in the internal and external supply chain.

Index Terms— Management System; Integration; OHSAS 18001: 2007 Standards; ISO 28000: 2006; Security; Supply Chain

I. INTRODUCTION

Currently, the logistics sector, focused on the transportation of land cargo, storage and import and export, is a sector in the process of activation and vanguard in the generation of opportunities for the Colombian Caribbean sector, endorsed by the same company, which reports growth In its services with the application of the standards OHSAS 18001: 2007 and ISO 28000: 2006 [1]. For any organization or company, whether micro, small or medium-sized; Has been necessary because of its enormous benefits once implemented.

The management is security in the processes and the good logistics of the supply chain in the organization, is essential for any company whatever the field in which it performs, since the level of competition in the markets currently requires in the products And / or services offered, requirements, standards that are fully complied with, as well as, it takes these norms as tools to implement a culture of continuous improvement that allows the achievement of the levels of satisfaction expected by the market, and By the same company [2].

Currently, several of the objectives that a logistic company can achieve with the implementation of OHSAS 18001: 2007

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and ISO 28000: 2006, through the integrated management system (GIS) are the continuous improvement of its processes, increased efficiency, efficiency [3]. In this paper, we present the results of a study of the impact of cost-effectiveness on costs and costs. Transport, logistics and cargo storage is a very complex sector that has a very significant impact on prices and safety. The optimal management and control of all the resources involved and the internal operations can not only mean better financial results, but also the survival of the company itself and the welfare of the workers, taking into account the compliance with legal standards corresponding to this type of business [4].

The importance of industrial safety and the safety of its processes including the start and the end of the supply chain in our country has taken a big boom in recent years, because the accident rate in the country has increased exponentially in [5].

A company in the logistics sector must have certification in the BASC standard, which its validity (1 year) will reach coalition soon and the company's directive expresses a desire to move from the current standard to ISO 28000, since it is worth noting, The BASC standard has become a good system, but it is based on ISO systems [6]. Recognizing that the ISO standard is much better known and robust worldwide, in addition to the BASC standard is only certified for a year, while ISO 28000: 2006 is certified for three years by Pokoradi in 2010[7], which also falls into the interests of the top management of the company [8].

Some logistic companies present shortcomings in the organization, standardization and management of their processes because they do not have an internal auditor [9], another reason why it has been decided to change its condition with respect to The implementation of another standard [10].

In these organizations there is a need to design an occupational health and safety and security management system [11] as indispensable, since possible risk scenarios and lack of management and internal organization can affect competitiveness of the company [12].

The previous one is one of the guidelines in which it is wanted to base this investigative initiative taking into account the continuous improvement, the quality and the prevention of occupational diseases and accidents of work, which are part of the differentiating elements of an organization, thus marking Its competitive advantage in the market.

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II. ORGANIZATIONAL DIAGNOSIS

For all organizations, regardless of their economic development framework, conducting an analysis of the current situation is the starting point for an improvement or as a start for something to be done [13].

It emphasizes aspects that can not be exercised control, which are generally presented as external factors and those that can be controlled if they are internal factors of the organization [14].

In order to develop an initial diagnosis, it is essential to establish a comparative framework, which serves as a reference and base in order to carry out the study of the current situation, analyzing the environment in which the

company develops [6]. In this way, to know the opportunities to be taken into account to generate competitive advantage, taking into account the threats of the environment [15].

It also performs an analysis of the internal environment of the organization, those weaknesses and strengths inherent to the organization, determining which to avoid and improve and / or take advantage respectively. In order to diagnose the situation of the company through a DOFA matrix, [16].

To appreciate the characteristics can be observed the internal and external situation of the company [17]. All of this was done on the basis of direct observations, surveys and interviews with personnel directly involved in the processes, and facilitated obtaining first-hand information in all aspects analyzed below:

Table 1. DOFA Analysis

STRENGTHS		WEAKNESSES
Experience in the sector.		Lack of competitive advantage.
Trained and experienced staff.		Lack of specialized personnel.
Structure and coverage.		Little recognition in the sector.
Defined organization.		Limited financial resources.
Knowledge of the market.		Lack of human management that meets the internal needs.
Capacity of indebtedness.		Insufficient own transport units in case of increased demand.
Own and outsourced transport units.		
OPORTUNITY	Expand fleet of transport units in order to cover a higher market share.	To take advantage of the possible growth of the organization for the hiring of specialized personnel that helps to position the same in the sector.
	Through a GIS to obtain greater recognition and positioning in the sector.	Constant training of staff in order to provide a total quality service.
	With the experience and knowledge of the sector achieve flexibility that allows the organization to adapt in a timely manner the needs of the market.	Take advantage of the growth of the sector and the access to new customers for the increase of assets that allow to cover an increase of the demand by the sector.
	Exponential growth of the sector.	
	Access to new customers.	
	Market positioning.	
	Incorporation of new technologies and talents.	
THREATS	Guarantee the quality of services provided through the implementation of a GIS.	Design a GIS that allows the organization to be more competitive in the market and acquire more recognition that helps to position itself.
	Through the experience in the sector develop activities that generate and mark a competitive advantage with respect to potential competitors.	Make agreements in order to increase the availability of transport units.
	Generate positioning so as not to miss out and capture market share.	Generation of marketing ideas to attract potential new customers.
	Presence of similar companies with recognition in the sector.	Generate and bring human talent in order to increase the commitment of a total quality in the provision of services.
	Highly competitive market.	
	Possible integration of new competitors due to growth in the sector.	
	Lack of occupational risk management	

Taking into account the DOFA analysis carried out in the company Logistics, several strategies were identified that could unlock challenges that could eventually materialize, taking as a starting point "Designing an SGI that allows the organization to be more competitive in the market And acquire greater recognition in order to position itself [18], being timely and successful the development of this project, since it can mark a now and a later with respect to how the activities of the organization [19].

III. DESCRIPTION OF THE ANALYSIS

It is necessary to prepare a comparative analysis between the standards that make up the Integrated Management System in order to unify requirements to establish a diagnosis of the organization and a subsequent design of the system in accordance with the requirements of each standard. Subsequently, the requirements will be analyzed within the integrated management system:

Table 2. Comparative analysis OHSAS 18001: 2007 and ISO 28000: 2006 standards

VARIABLES	INDICATORS	
	OHSAS 18001: 2007	ISO 28000: 2006
GENERAL REQUIREMENTS	The organization shall establish, document, implement, maintain and continuously improve an OSHMS in accordance with the requirements of the OHSAS standard and determine how the requirements of the standard will be met.	The organization shall continuously establish, document, implement, maintain and improve an effective SMS to identify security threats, assess risks and control and mitigate their consequences in accordance with the requirements of ISO 28000.
	The organization must define and document the scope of its Occupational Health and Safety Management System (OSHS).	The organization should define the scope of its SGS, within the SGS to identify the controls and responsibilities, since any process that affects compliance with the requirements of the standard, the organization must ensure that those processes are controlled.
	Top management must define and authorize the OH & S policy of the organization.	Top management must authorize a General Security Management policy.
SECURITY MANAGEMENT POLICY	Ensure that, within the scope of its OH & S, the policy is appropriate for the nature and scale of OSH risks, include commitment to injury and illness prevention, continuous improvement in management, compliance with legal requirements, benchmark for Establish and review the O & S review objectives periodically.	The policy must be consistent, set specific objectives, goals and programs of management, be consistent with the structure of the management of threats and risks of security, clearly determine the objectives of security management, commitment to continuous improvement, meet With the requirements and statutory, must be documented, implemented and maintained.
SAFETY RISK ASSESSMENT AND PLANNING	The organization shall establish, implement and maintain a procedure (s) for the continuous identification of hazards, risk assessment and determination of the necessary controls, as well as documenting and keeping up-to-date the results thereof.	The organization shall establish and maintain procedures for the continuous identification and assessment of security threats and risks related to security management and the identification and implementation of management control measures.
	The organization shall establish, implement and maintain a procedure (s) for the identification and access to OH & S legal requirements that apply to it, and communicate the relevant information to the persons working in the organization and other interested parties.	The organization shall establish, implement and maintain a procedure for identification and access to applicable legal requirements and other requirements in relation to threats and risks to safety. The information should be kept up to date and communicated to all interested parties.
	The organization must establish, implement and maintain OSH objectives at relevant functions and levels within the organization, these should be measurable and consistent with OH & S policies.	The organization shall establish, implement, and maintain documented safety management objectives at the relevant roles and levels within the organization. Objectives should be derived and consistent with policy. As well as establishing, implementing and maintaining security management programs to achieve their goals and objectives.
	Top management must assume maximum responsibility for S & SO and SGSSO.	The organization shall establish and maintain an organizational structure of functions, responsibilities and authority consistent with the achievement of its policy, objectives, goals and safety management programs. Also procedures for people working in the organization to be aware of the importance of compliance with the requirements of the SMS.
	The organization must identify training needs related to OH & S risks and OH & S risks, as well as establish, implement and maintain procedures to make all personnel in the organization aware of the actual and potential OH & S consequences of their work activities, And the importance of achieving compliance with the requirements of the OHCHR in general.	The organization shall establish and maintain a system of safety management documentation, as well as procedures for controlling all documents, data and information required by ISO 28000, paragraph 4, and determining the confidentiality of safety information.

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IV. DESCRIPTION OF THE ANALYSIS

Taking into account the common identified requirements of the two management systems with which this work is carried out, the Integrated Management System will be developed with the realization of the Manual and procedures required for its design, as well as the process map in which.

Table 3. Parallel evaluation of systems

OHSAS 18001: 2007	ISO 28000: 2006
4. REQUIREMENTS OF THE OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM	4. ELEMENTS OF THE SECURITY MANAGEMENT SYSTEM
The company does not have an Occupational Health and Safety management system and security in the supply chain	
4.1 GENERAL REQUIREMENTS	4.1 GENERAL REQUIREMENTS
The company has no established, nor documented an Occupational Health and Safety management system and security in the supply chain according to the requirements of the standards	
4.2 OCCUPATIONAL SAFETY AND HEALTH POLICY	4.2 SECURITY MANAGEMENT POLICY
There is no defined security policy, nor scope of the management system	
4.3 PLANNING	4.3 SAFETY RISK ASSESSMENT AND PLANNING
4.3.1 Identification of Hazards, Risk Assessment and Determination of Controls.	4.3.1 Security Risk Assessment
The organization does not have established and documented safety objectives that meet the requirements of the system as well as programs for hazard identification, risk assessment and control.	
4.3.2 Legal and Other Requirements	4.3.2 Legal, statutory and other regulatory security requirements
The company has no established procedures	
4.3.3 Objectives and Program (s)	4.3.3 Security Management Objectives
	4.3.4 Security Management Goals
	4.3.5 Security Management Programs
The company has not documented objectives and programs but has empirical knowledge about physical security, such as personal protection elements, and possible risks that may arise in their environment.	
4.4 IMPLEMENTATION AND OPERATION	4.4 IMPLEMENTATION AND OPERATION
4.4.1 Resources, Functions, Accountability, and Authority.	4.4.1 Structure, Authority and Responsibilities for Security Management
La organización no presenta ninguna documentación requerida en este numeral con respecto a las normas	
4.4.2 Competence, Training and Awareness.	4.4.2 Competence, Training and Awareness.
The organization does not submit any documentation required under this numeral with respect to standards	

4.4.3 Communication, Participation and Consultation	4.4.3 Communication
The organization does not submit any documentation required under this numeral with respect to standards	
4.4.4 Documentation	4.4.4 Documentation
The company does not have documentation required by the management systems	
4.4.5 Control of Documents	4.4.5 Control of Documents and Data
The organization does not present any documentation required in this numeral with respect to the norms of the management system	
4.4.6 Operational Control	4.4.6 Operational Control
4.4.7 Emergency Preparedness and Response	4.4.7 Emergency Preparedness and Response and Safety Recovery
The organization does not present the requirements of this numeral with respect to the norms of the management system	
4.5 VERIFICATION	4.5 VERIFICATION AND CORRECTIVE ACTION
4.5.1 Measurement and Monitoring of Performance	4.5.1 Measurement and Monitoring of Safety Performance
La organización no presenta los requerimientos de este numeral con respecto a las normas del sistema de gestión	
4.5.2 Evaluación del Cumplimiento Legal y Otros	4.5.2 Evaluación del Sistema
The organization does not present the requirements of this numeral with respect to the norms of the management system	
4.5.3 Incident Investigation. No Compliance, Corrective Actions and Preventive Actions.	4.5.3 Failures Related to Security, Incidents, Non-Conformities, and Corrective and Preventive Actions
The organization does not present the requirements of this numeral with respect to the norms of the management system	
4.5.4 Control of Records	4.5.4 Control of Records
The organization does not present the requirements of this numeral with respect to the norms of the management system	
4.5.5 Internal Audit	4.5.5 Audit
The organization does not present the requirements of this numeral with respect to the norms of the management system	
4.6 MANAGEMENT REVIEW	4.6 MANAGEMENT REVIEW AND CONTINUOUS IMPROVEMENT
The organization does not present the requirements of this numeral with respect to the norms of the management system	

V. DISCUSSION

Being able to base the transformation and to generate specific solutions, finding as first strengths the possession of trained and experienced personnel immersed in an already well-known market and with resources useful for the management the own transport units in a similar way to the arguments in the study of (Although not sharing the conclusions of Addo-Tenkorang and cols [18], who focused on the competition and the maximization of their sources of consolidation in a more competitive market.

On the other hand, weaknesses such as having limited financial resources and a lack of management tools to meet internal needs are one of the main shortcomings of the matrix evaluation, obeying postulates published by (Zeng and cols [16] and Chien in 2013[17], give a real priority to what the company requires and needs within a desired management system.

With the experience and knowledge of the sector achieve flexibility that allows the organization to adapt in a timely manner the needs of the market similar to those concerned by (Kyncl and cols [3]. Transport, logistics and cargo storage is a very complex sector that has a very significant impact on prices and safety. They stand out as excellent opportunities to advance in the consolidation of management systems [4]. As a threat to be mentioned, emphasis should be placed on situations such as the presence of similar companies with recognition in the sector and a highly competitive market that will marginalize every company without sufficient resources to meet the challenges imposed in the current market [1].

VI. CONCLUSION

When adopting the analysis of approach of the structure matrix proposing in the platform aspects of the management required in the logistics company with management of adapted data using an approach where the methodology allows characterization of the context of the organization, interacting with what the Problematic can be given a representation in tables that illustrated the way in which the context and visualization of the situation was devised. Obtaining parameters

The choice of strategy methods was adjusted to the preference of the researchers, who combined inventive principles of the strategic matrix (SWOT, probability and impact matrix) in an integrative way, constituting

A useful and easy-to-apply matrix instrument, allowing the generation of specific strategies, which initially identified the negative parameters of the analysis, threats or weaknesses of the problem and, therefore, continue with the root cause of the problem, proposing solutions that attack from other perspectives.

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