

# QHS Methodology to Innovate the Value Chain in the Supply Chain

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### **ABSTRACT**

In the foreign trade sector, the companies that make up the value chain; They make up its portfolio of services with customs agency, cross-border transport, merchandise warehouses and international logistics. The supply chain integrated by the implicit relationship of suppliers, companies and customers generates large areas of opportunity in the key phases of specialization, innovation and competitiveness in the management and administration of operations, strengthening the learning curve processes in each phase of the value chain in the different strategic sectors of international trade. The QHS Methodology represents a methodological intervention strategy for the analysis of the factors that determine the elements of innovation, systematization of competitiveness through the consolidation of regulatory operation management models, specialized talent management and competency certification mechanisms at each stage of the supply chain.

**Keywords:** QHS methodology, DCS methodology, Supply chain, Competitiveness and innovation

#### INTRODUCTION

As a result of a Master's Thesis Project in Administration at the Technological Institute of Tijuana, a proposal for a Business Administration Model has been made in the value chain sector of supply chain services in foreign trade and customs. Innovation initiative for small businesses of family origin that have traditionally worked under the figure of the Customs Agent in physical person, facing the challenges in the changes in the Mexican Customs Law (DOF, 2018); that they must rethink their structure towards the formation of a Customs Agency to operate under the concept of "customs agency patent", concept of legal person. Customs broker: natural person authorized in article 159 of the Customs Law through a patent, to offer the services of customs clearance of goods as third parties. The Official Gazette of the Federation of the Government of Mexico publishes the regulations of legal requirements for the operation of the Customs Agent, which has generated various processes of analysis and research among specialists in view of the need to strengthen business structures, the empowerment of Specialized Talent Management at every stage of the supply chain services of the foreign trade and customs value chain (Madrigal, 2017). One of the reference mechanisms in Mexico for

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Customs Services - Quality of services provided by the customs broker (quality of customs broker) is the Mexican Standard; NMX-R-026-SCFI, which was developed for the shared interest of the production chain to establish clear and precise technical specifications, As part of the strategies of sectoral and international linkage.

# QHS Methodology as a Supportive Framework for Innovation

The research project raised the need for the methodological design of qualitative approach to systematically assess through focus group the opinion of experts from different sectors of Society the necessary actions to consider in the design of a Business Model for a Customs Agency (Garcia, 2021). There is a great challenge and regional opportunity for the integration and strengthening of the level of competitiveness and innovation in the International Trade, Customs, Logistics and Supply Chain Sector, to promote the development of Competency Standards and their homologation of labor and professional competencies in Mexico, Central America and Panama. Challenges that can be crystallized through the support of the Academic Sector, Government Sector, Business Sector, Business Associations Sector and the Sector of Specialized Consultants.

Figure 1 presents the roadmap of the QHS methodology for the innovation process of the supply chain business, starting with the definition of the occupational analysis of strategic positions, categorizing the priorities of the sectoral agenda from a systemic approach, developing a Dictionary of Sectoral Competencies (Martinez, 2020, 2023), to strengthen the competitiveness and innovation of the value chain. The improvement tools contemplate a Project of an International Association on QHS Studies, with links with the area of Human Resources and adoption of good practices of quality management systems in processes, certification of competencies in each position in the company. The systematic methodology includes the analysis of competitiveness indicators, strategic national programs, through in-depth interviews, focus groups with representatives of the foreign trade supply chain and customs; with the support of the Center for Research and Innovation, Master's Graduate Program in Administration of the Technological Institute of Tijuana.

In the Table 1; the results of the methodological work of the application of the Fifth Helice System Methodology (Gutierrez, 2010, 2021) are presented; where representatives of the government, business, academia, chambers and associations of the foreign trade and customs sector participated and finally the sector of consultants specialized in the value chain of the business of the supply chain of international trade and customs. That they analyzed Mexico's experience of the development of Labor Competence Standards of CONOCER (National Council for Standardization and Certification of Labor Competencies) for the International Trade and Customs Sector with which the Human Capital Agenda for Human Talent Management is addressed and its level of specialization (Martinez, 2022), according to Occupations, as well as the regulations according to the Customs Law.

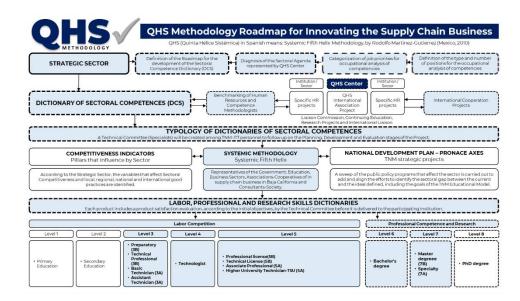


Figure 1: QHS methodology. (Adapted from Martinez, 2010.)

Table 1. QHS methodology focus group results - supply chain services.

Code	Legal requirement	Related Employment
EC1301	Risk identification, prevention and mitigation in customs matters and Foreign Trade	<ul> <li>Business Operations Agent</li> <li>Customs broker</li> <li>Freight forwarder</li> <li>Traffic coordinators</li> </ul>
EC1111	Verification of operation in customs matters and of Foreign Trade through a Compliance	<ul> <li>Business Operations Agent</li> <li>Customs broker</li> <li>Freight forwarder</li> <li>Traffic coordinators</li> </ul>
EC0707	Customs Operation in the Business Field	<ul> <li>Expert in customs operation in the business field</li> <li>Executive expert in the customs operation of agencies Customs</li> <li>Legal Representative of Foreign Trade</li> </ul>
EC0668	Representation of foreign trade actors to promote the direct customs clearance of goods without the intervention of an agent customs	<ul> <li>Business Operations Agent</li> <li>Service Sales Agent</li> <li>Sales Promoter</li> </ul>
EC0634	Security audit in the chain Foreign Trade Supplies	<ul> <li>Internal Auditor of security in the supply chain of foreign trade</li> <li>External Supply Chain Security Auditor of foreign trade</li> </ul>
EC0432	Tariff classification of goods foreign trade	<ul><li> Tariff classifier</li><li> Goods classifier</li><li> Customs Classifier</li></ul>
NMX-R-026-SCFI	Customs Services - Quality of services provided by the customs broker – Requirements	<ul><li>Customs Broker</li><li>Customs Agencies</li></ul>
Customs Law	Official Journal of the Federation (DOF)	<ul><li>Customs Broker</li><li>Customs Agencies</li></ul>

# DEVELOPMENT OF STRATEGIC PROJECTS AS AN INNOVATION TOOL IN THE SUPPLY CHAIN BUSINESS

The results of the research to develop a business management model is based on the good practices of a Corporate Governance (Larenas, 2017), when companies in the foreign trade and customs services sector begin their phase with the value chain with a Customs Agency, according to the level of consolidation of their operations and the preferences of customers in the market, It is a growth process with additional services in your business strategy portfolio; such as the cross-border transport service, warehouses and logistics management and advice on integral solutions to exporting and importing companies of goods. The improvement proposal for the strengthening of the transition from the traditional business figure of Customs Broker to a figure of Customs Agency with all the elements of the value chain of services integrated in the supply chain of foreign trade and customs, are presented in Table 2, with strategic projects aimed at strengthening and shaping a Management System towards the design of a Model Reference Standard for Corporate Governance of business administration with generational change processes with training of authority managers, responsibility structures and certification of competencies by levels in each business unit.

Table 2. Corporate governance model for customs agency (Villa and Martinez. 2021.)

Value Chain	Strategic projects in the supply chain business
Corporate Approach to Supply Chain Services	Design and proposal of corporate strategic plan for supply chain company
	Supply chain business intelligence model
	Administration of a social responsibility system in supply chain business
	Evaluation of the performance of the quality management system in supply chain business
Customs Agency	Customs agency operations management model Model and development of business interest groups in customs
Services	agency
	Authority model in a quality management system
	Financial budget management model in customs agency
	Talent management in tariff classification executives in customs
	agency
	Administration of the information system of customs agency with maritime service
Transportation Services	Administrative management model in foreign trade company Talent management in cross-border transport operators
	Objectives and indicators in cross-border freight transport
	Enterprise project management model cross-border transport
Logistics	Administration of cross-border logistics services
Services	Customer service model in logistics services
QHS Service Center	Certification of human talent management competencies in
Project Project	supply chain services
Troject	Development and updating of Supply Chain Sector Competency
	Dictionaries (CSDs)

### **CONCLUSION**

The exciting world of studies of global development and the competitiveness of nations, makes it necessary to reflect on the importance and development of competencies in the functions of the different labor and professional functions, in all sectors of society. One strategy to boost sectoral competitiveness is the development of Labor Skills Standards; It must consider the three knowledges for integral development: Knowing how to know (knowledge), Knowing how to do (skills and abilities) and knowing how to be (attitudes and behaviors). A strategy to boost sectoral competitiveness is the development of Standards of Labor, Professional and Research Competences and KPI's (Bernard, 2018). Likewise, the standards reflect good practices and become a benchmark to shorten the learning curve and create more effective processes in the transfer of organizational and even generational knowledge management (Perilus, 2021), strengthening productivity in the processes of recruitment, selection and professional updating. The proposal of the design and proposal of a new Mexican standard for the organizational experience of moving from the figure of Customs Agent of natural person, to moral person of Customs Agency, arises with the mechanisms of a strategic project management system to the strengthening of the organizational structure (Madrigal, 2017) and above all the management of specialized talent through competency standards to ensure the effective operational learning curve, staff, administrative and managerial level (Munger, 2022).

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Sincerely
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