UNIVERSIDAD DE VALPARAÍSO FACULTAD DE CIENCIAS ECONÓMICAS Y ADMINISTRATIVAS ADMINISTRACIÓN DE NEGOCIOS INTERNACIONALES

ANALYSIS OF THE VARIABLES OF THE DOCUMENTARY PROCESS: COMPAÑÍA CHILENA DE NAVEGACIÓN INTEROCEANICA S.A.

Author ÁLVARO DAVID ESPINOZA BARADIT

"INFORME DE PRÁCTICA PROFESIONAL PRESENTADA A LA CARRERA DE ADMINISTRACIÓN DE NEGOCIOS INTERNACIONALES DE LA UNIVERSIDAD DE VALPARAÍSO PARA OPTAR AL GRADO DE LICENCIADO EN NEGOCIACIONES INTERNACIONALES TÍTULO PROFESIONAL DE ADMINISTRADOR DE NEGOCIOS INTERNACIONALES"

TUTORING PROFESSOR: DR. TERESA PINO, Ph.D.

Viña del Mar, January 2017



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To my mother, my wife, my family and friends of life, thank you very much for your unconditional support. I love you.

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A mi madre, mi esposa, mi familia y amigos de la vida, muchas gracias por su apoyo incondicional. Los amo.

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Thanks to the Universidad de Valparaíso for an unforgettable life experience, to my Tutoring Professor for her patience and Compañía Chile de Navegación Interoceánica for being my first work experience and the initial step for everything I have achieved professionally.

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Gracias a la Universidad de Valparaíso por una experiencia de vida inolvidable, a mi profesora guía por su paciencia y a la Compañía Chilena de Navegación Interoceánica por ser mi primera experiencia laboral y el paso inicial para todo lo que he conseguido profesionalmente.

ABSTRACT

This report analyzes the variables of the documentation system carried out by the agency network with the Chilean Interoceanic Navigation Company works around the world. Based on recognized theories about quality, it is sought among other things to answer about which are the variables that affect this process and how they relate to each other.

KEY WORDS: Shipping Company, Document Process, Bill Of Lading, Variables, Total Quality Control, 5P's Model

RESUMEN

En este reporte se analiza las variables del sistema de documentación llevado a cabo por la red de agencias con la Compañía Chilena de Navegación Interoceánica trabaja alrededor del mundo. Basados en reconocidas teorías sobre la calidad, se busca entre otras cosas responder sobre cuáles son las variables que afectan este proceso y como se relacionan entre sí.

PALABRAS CLAVE: Compañía Naviera, Proceso Documental, Conocimiento de Embarque, Variables, Control Total de Calidad, Modelo de las 5P

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INTRODUCTION

This report details all activities performed during the period covered by my internship, which was developed in the department of Compass Documentation & Support, specifically focused on the area of internal documentation of the shipping company "Companía Chilena de Navegación Interoceánica S.A."

The developed tasks were related to the coordination, correction and control of Bills of Lading (B/L from now on) where the need to evaluate the performance Company's network of agencies became urgent due to the problems generated to the clients because of the high number of corrections to the original Bs/L once documentary and operations process are completed.

The main objective of this report is to analyze the variables affecting the documentary process by which the agencies are the main responsible. In order to accomplish this goal, the variables must be identified and then described to establish their relevance, afterwards, the same will be analyzed and evaluated based on how they relate to each other and deliver measurable data.

The following questions are meant to be answered through this study: What are the variables that should be considered in the agency evaluation system? How do these variables interact with each other to measure different aspects? How to mix these relationships so they deliver information relevant to the study?

This report establishes its basis on the theory of quality control theory of Armand V. Feigenbaum (1961) which states the principles and practices that the entire company and its employees must incorporate for improving product quality.

The variables of the universe provided by the B/L database will be collected, then described and analyzed to prepare an evaluation system that will allow the acknowledge of what the current quality standards are of the documentary process.

1. CHAPTER I: Description of the Internship

1.1. DESCRIPTIVE BACKGROUND OF CCNI: Compañía Chilena de Navegación Interoceánica S.A.

Chart 1: Enterprise Individualization

| CORPORATE NAME | COMPAÑÍA CHILENA DE NAVEGACIÓN INTEROCEÁNICA S.A. |
|-----------------|--|
| Trade Name | CCNI and Interoceanica |
| Type of Company | Corporation |
| Mnemonic Code | Interocean, Santiago Stock Exchange |
| Legal Adress | 59 Plaza de la Justicia, Valparaiso |
| Tax Card No | 90.596.000-8 |

Source: CCNI, official web site, http://www.ccni.cl, 2013

CCNI is a shipping company, whose business has been to operate shipping services since 1930, connecting the east and west coasts of South America, it is part of the holding Empresas Navieras, its subsidiaries are complemented to form part of the freight services chain in a efficient way. It also has a global network of agencies that allow answering to transportation needs throughout the five continents, with 215 outlets, distributed in 58 countries.

The philosophy of the company is focused on the client, which is why it has worked to improve the customer service, through a series of innovations that have been implemented in all areas. These efforts have been based mainly on the desire to be a nearby and agile shipping company, which is easy to contact.

CCNI's mission is to become the Northern Hemisphere - Southern Hemisphere Network of the sea lines services that best supplies to Latin America and the Caribbean, creating value for its shareholders.

1.1.1. Historic Background

CCNI was founded in 1930, when two companies based in Punta Arenas, Chile, decided to create the Inter-Oceanic Navigation Company of Chile in Valparaiso, with the aim of stablishing shipping services between ports of South Atlantic and South Pacific oceans, across the Magellan Strait.

CCNI was the first shipping company to transport oil from Peru, Chile, Argentina and Brazil through the Magellan Strait and was also the initiator of the gas transportation business in Chile in the 50s.

In 1977, it was pioneered to make a major commitment and transport cars between Japan and South America in a massive way, and was also the company that opened the regular liners service to and from East.

The 80s were marked by the opening of several new services. In 1981, CCNI began the Andes Express Service, the first "full container", for which CCNI was associated with two Japanese carriers. In addition, the Company "Integrated Transport Services Ltd." (SITRANS) was established, which built the first container terminal in Chile.

1.1.2. Property

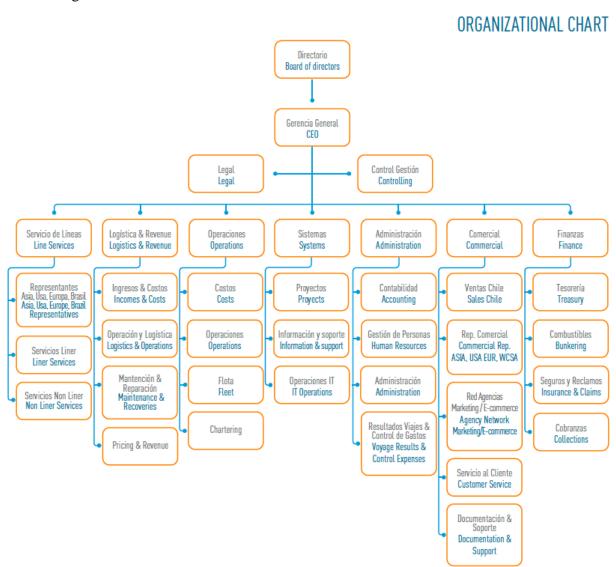
The controlling shareholder of the company is Grupo de Empresas Navieras S.A. (GEN) with the 74.01% of participation, as explained on Appendix 1: The main Company stockholders at December 31, 2013 in the Annexes, it is important to note that there is not one single controller of GEN.

Meanwhile, Inversiones Tongoy S.A. and Sociedad de Inversiones Paine S.A own 50% of the total stakes, Euroinversiones S.A., Soc. Nacional de Valores S.A. and Dos Robles Housing S.A. are shareholders of Sociedad de Inversiones Paine S.A. all of them are direct shareholders in GEN, see the information on Appendix 2: GEN's stockholders at December 31.

1.2. Organization of the Company

CCNI is administered by a board consisting of seven members. They deliver certain guidelines CEO of the Company, who, is assisted by the managers of each of the areas, he has the mission to execute those instructions.

Chart 2: Organizational Chart



Source: CCNI, official web site http://www.ccni.cl

Regarding the Company's Headquarters staff, on 31 December 2013, was formed by 193 employees, distributed in Managers, Executives, Professionals, Technicians and Workers distributed in Santiago and Valparaíso.

Chart 3: CCNI's Employees

| | CCNI'S STAFF IN CHILE | |
|--------------------------|-------------------------------|-----|
| Gerentes y Ejecutivos | Managers and executives | 12 |
| Profesionales y Técnicos | Professionals and technicians | 168 |
| Trabajadores y otros | Workers | 13 |
| TOTAL | TOTAL | 193 |

Source: CCNI, official web site http://www.ccni.cl

In order to maximize de CCNI Agency Network and Sales force, there are subsidiaries and representative offices distributed in different continents all over the world, each Company has their Regional Coordinator responsible for the performance and coordination of the agencies, and there are a total of 9 persons working abroad.

Chart 4: Subsidiaries and representatives.

| CCNI Asia | CCNI Asia | 2 | |
|--------------|-------------|---|--|
| CCNI Europoa | CCNI Europe | 5 | |
| CCNI USA | CCNI USA | 1 | |
| CCNI Brasil | CCNI Brasil | 1 | |

Source: CCNI, official web site http://www.ccni.cl

1.3. CCNI Services

The first thing to considerate before explaining the service offered by CCNI, is that it relays on two factors, first and more important is the client request, but this must match the operative feasibility so the commodity to transport determines the service.

With the purpose of satisfying every client's need, the Company provides transportation services for different types of cargo, but first, it is important to identify the 3 different types of vessels operated by CCNI:

- **1.3.1. Container Vessels**¹ are cargo ships that carry all of their load in truck-size intermodal containers, in a technique called containerization. They are a common means of commercial intermodal freight transport and now carry most seagoing non-bulk cargo.
- **1.3.2. Multi-purpose Vessel**² is a seagoing ship that is built for the carriage of a wide range of cargoes. Their all-round design must be able to carry heavy loads, large objects and unitized cargo as bulk cargo. These cargoes can be rolled or lifted on board so this requires different types of loading gear.
- **1.3.3. Roll-on/roll-off** or "Car carrier" vessels are designed to carry wheeled cargo, such as automobiles, trucks, semi-trailer trucks, trailers, and railroad cars, that are driven on and off the ship on their own wheels or using a platform vehicle.

1.4. Containers and Equipment

On the other hand, CCNI has an owned fleet of 103.320 TEUs distributed in 20' STD, 20' STEER, 40' STD, 40'HQ and 40'HQ Reefers Containers meant to transport dry, refrigerated and frozen cargo in containers vessels.

Chart 5: Owned Units (CCNI and Subsidiaries)

| UNIDADES PROPIAS (CCNI Y SUBSIDIARIAS) OWNED UNITS (CCNI AND SUBSIDIARIES) | | | |
|---|---------------------|-------------------|--|
| TIPO | TIPO MEDIA CANTIDAD | | |
| TYPE Dry | MEASURE 20' | QUANTITY 7.553 | |
| Dry | 40' | 2,942 | |
| High Cube | 40' | 1,425 | |
| Reefer | 40' | 1.911 | |
| Others | | 0 | |
| | | | |

Source: CCNI, official web site http://www.ccni.cl

¹ The Ship List. (2015). Ships Descriptions. [online] Available at:

http://www.theshipslist.com/ships/descriptions/ContainerVessels [Accessed 12 Aug. 2015].

² The Ship List. (2015). Ships Descriptions. [online] Available at:

http://www.theshipslist.com/ships/descriptions/ContainerVessels [Accessed 12 Aug. 2015].

³ The Ship List. (2015). Ships Descriptions. [online] Available at:

http://www.theshipslist.com/ships/descriptions/ContainerVessels [Accessed 12 Aug. 2015].

It is also important to note that the client can provide his own container for the transportation or SOC (Shipper Own Container), reducing the logistics costs for the company, resulting in a lower transportation rate.

- **1.4.1. Project and Massive Shipments**⁴, these are two different types of commodities mostly transported in Multi-purpose Vessels:
 - The first ones are large, heavy, high value or a critical (to the project they are intended for) pieces of equipment. Also commonly referred to as heavy lift, this includes shipments made of various components which need disassembly for shipment and reassembly after delivery such as train wagons or blades for wind turbines.
 - Massive and Bulks are cargoes that has no order, number, and measure and transported unpacked or unpackaged. Typical example is constituted by wheat or rye, but it also can be products such as steel coils. By extension, it applies to the large volumes of cargo demand at least one transport unit.

1.5. Services

CCNI's services are offered in different geographical areas such as the coast of South America, U.S. East Coast, Gulf, North Europe, Mediterranean and Asia. Attending with direct calls complemented with an efficient transshipment allies with quick inland connections, creating a powerful network, capable to satisfy the transportation needs of the customers and at the same time, flexible to meet new market segments.

⁴Worldshipping. (2016). Safe Transport of Containers by Sea. [online] Available at: http://www.worldshipping.org/pdf/industry_guidance_shippers_container_stuffers.pdf [Accessed 10 Oct. 2016].

1.5.1. Condor Service - Europe - South America West Coast

Frequency: rolling schedule

Fleet: 4 Vessels

Capacity: 950 - 1200 TEU



1.5.2. MedAndes Service - Mediterranean - South America West Coast

Frequency: rolling schedule

Fleet: 5 vessels

Vessels capacity: 1730 TEU

Reefer capacity: 200 per sailing



1.5.3. AGAS Service - North America East Coast - South America West Coast

Frequency: fixed-day weekly

Fleet: 6 vessels

Vessels capacity: 3000/4600 TEU

Reefer capacity: 500-800 per sailing



1.5.4. ASPA Service - Asia - Mexico / South America West Coast

Frequency: fixed-day weekly

Fleet: 10 vessels

Vessel Capacity: 4300 – 7100 TEU

Reefer Plugs 500 – 1600 per sailing



CCNI has a solid agency network around the world serving the shipping requirements of its customers in Asia, Southeast Asia, North America, Central America & Caribbean, South America, Africa, Northern Europe and the Mediterranean, with more than two hundred points of sell, located in sixty countries. This distribution ensures global sales cover and a high quality service, all supported by purchasing services from third parties, the efficient operation of the ships, the careful container yard management and freight collection.

1.6. Performed Activities

The time I developed my practice covered the period from March 18th until September 15th, 2013. The working hours were 43 hours and 45 minutes weekly, corresponding to 880 hours for the whole period. The activities were done at the Department of Documentation and Support, specifically in the Rate Correction area, where rate corrections in closed Bills of Lading (B/L from now on), Changes of Destination (COD from now on) and documentary requirements are attended, generally subject to agency activities throughout the world, focusing on the implementation of necessary modifications to the Bill of Lading, extremely important for the declaration to Customs and subsequent withdrawal of goods.

1.7. Structure of the Department

Sales Management, led by Commercial Manager Felipe Bermúdez, is divided into different areas, among which is the area of Agency Network, Marketing and Customer Service, is led by Ms. Maribel Fernández. As it will be explained on the following chart, the Compass area is managed by the supervisor Maria Brugueras, she is the leader of the three people in charge of the Documentation and Support sections.

Felipe Bermúdez VP Commercial Maribel Fernández Maribel Fernández E-Commerce & Agency E-Commerce & Agency Network Manager Network Manager Maria Brugueras Supervisora Documentación y Soporte Álvaro Espinoza Rodrigo Reyes Marisel Guerra Compass Rate Compass Compass Support Correction Documentation

Figure 1: Department Structure

Source: Own elaboration (2016)

1.8. Cargo and main performed tasks

During the course of my internship I participated in the documentary activities of the commercial area, directly related to respond to the requests from the national and international agencies as well as to provide relevant information about deadlines and customs regulations in different countries.

In order to proceed with task explanation, first, we had let clear that CCNI works with a Enterprise Resource Planning (ERP from now on) software that interconnects every area of the company, including costs, logistics, revenue, demurrage, pricing and commercial area. Every

Person in Charge (PIC from now on) of each department must upload and update the information in weekly basis in order to fully complete the following documentary flow:

1.8.1. Documentary process:

1.8.1.1. Quotation (**QT**)

This is the first time that the client and company interests meet. First, the client asks for a rate indication of a specific commodity between a port of loading (POL) and a port of discharge (POD), which the sales executive inputs into Compass, and based on the current market information and company guidelines, the system delivers a rate level with a specific period of validity, which can also be negotiated depending on the volume and frequency of the shipments.

1.8.1.2. Booking (BK)

Once a QT is accepted, the Sales person, generates a reservation in a vessel calling the POL in the requested dates, a correlative voyage number and bound, this reservation considers the rate agreed on the previous stage. This numeration is requested at the terminal in order to enter the containers to the stacking area.

1.8.1.3. Bill of Lading (B/L)

Finally, once there is a confirmed BK, the client generates a Bill of Lading, which can be sending the drafts directly to the agency or through the webpage. Compass is able to read this information and generates document with a correlative numeration and a status. The first status is called DRAFT, which means that amendments and modifications can still be done if necessary and approved by commercial and documentation department. Then, after all concerned parties approves the document, the system automatically changes the status to CLOSED, after the sailing of the vessel, meaning that the information contained is correct and the document can be released to the customer.

As it can be appreciated, this procedures can be very tricky, if any mistake is made at any stage of the process, but it turns worst when the B/L has already been issued and delivered to the customer, who needs the documents presented to the concerned parties perfectly issued and reflects the reality of the shipment. Everyone involved tries to avoid mistakes and re check the input information as much as they can to prevent extra costs or fines for the customer.

1.8.2. Corrections

There are 3 main types of errors that customers report after the document is CLOSED, these are:

1.8.2.1. Rate Correction

According to one of CCNI's policy, every rate change, must be done before the closing of the B/L, which is 24 hours after the sailing of the vessel from the POL. This situation normally pops up when the client approaches the agency and tries to print the BL, making a discrepancy between what he agreed on with the sales person and what the document is reflecting. This may be the cause of any of the following reasons: 1) the final rate negotiation took part after the sailing; 2) there was a system update that the agency did not inform to the client; 3) there was a human error informing the appropriated rate; 4) The Pricing Department wrongly uploaded the rates for that stretch or finally because there is an error in Compass.

In order to process a request, agents must fill the BL Amendment Request format which specifically explains the required amendment (Apendix 3). Every reason has a different treatment, so in order to properly meet the agency request, I had to learn how to identify the different types of e-mail request and shunt them to the corresponding area.

Chart 6: Request classification

| E-mail | Not Identified | Derivate to Supervisor | Action to be done | Responsibility | Evaluate d on KPI |
|---------------------|-------------------|---------------------------|-------------------|----------------|-------------------|
| received on CCNI | | Late Negotiation | Confirm | CCNI Sales | No |
| Compass | | Not informed update | Confirm | Agency | Yes |
| Rate | Identified | Human error | Confirm | Agency | Yes |
| Correction Inbox | | Pricing Error | Confirm | CCNI Pricing | No |
| | | Compass Error | Ask IT Department | CCNI IT | No |

Source: Own elaboration (2016)

This kind of correction does not generate costs for any involved party, but corrections are evaluated every 3 months on the KPI of each agency, in which our area contributes to the commercial indicator. Every identified amendment must be confirmed with the corresponding backup, but basically they can be separated in three kinds, the first and simplest way to confirm is searching the right rate with the Service Contracts (SC-XX) in the case of USA, for ASIA, TIR or NACCs files distributed daily by the Sales Department are valid backups, those are excel files containing a compiled report with the quotes negotiated with each client. It is important to point out that either SC, TIR or NACC must be included in the body of the BL.

The second way to confirm the amendment, it is to ask with CCNI Pricing department, this is done by e-mail, explaining and attaching all relevant information to the case, then Pricing evaluates the request and approves or disapproves the amendment.

If the two previous alternatives were not enough, and the client is pushing the agency, the only persons that may approve the amendments, are the Commercial Coordinator of each Market who makes the final decision.

Chart 7: Market v/s Backups

| Market | Agreement | Pricing | Regional Coordinator |
|--------|-----------|---------|-------------------------|
| Asia | X | X | X |
| USA | X | X | X |
| Europe | | X | X |

Source: Own elaboration (2016)

There is just one type of request left; this is when a BL covering CCNI's Empty Container that must contain rate \$0, generated in the Logistic Department showing a different value. For this case, and because of all the implications that this situation involves, the only person able to authorize this correction, is the Chief Executive Officer of the company.

As a way of feedback, in the same time that the problem is corrected and the amendment is informed to the agency, I must assist and guide the agency, with the actions to made to avoid this errors and highlighting the importance to reflect the correct rate in the documents and how this affect our service quality.

1.8.2.2. Changes of Destination (COD)

According to the essence of the shipping business, one of the common operations performed in exports is the one that reassign the port of discharge of the cargo. These changes are made once the ship has already sailed so the BL is closed. The reasons that may cause a COD, are either the exporter or importer need the cargo unloaded in a port other than that originally said, or at other times, the port strikes make this operation necessary.

As appreciated on the COD Chart (Annex N° 4), when a COD is needed, all relevant information must be included. First, the info needed to identify and lookup the B/L on Compass (Vessel, Voyage, Container). Then, the current and new port of discharge and place of delivery.

Finally, and it is important to consider that there are two different types of costs involved in this operation, one is the COD fee that is USD 200 dry / USD 300 RF per BL, applied for the administrative work, and then, when the operative feasibility is evaluated, the stowage costs are informed to the client.

At last, when a client confirmation is attached, an e-mail is received, I proceeded with the change in Compass for both ports and rates.

1.8.2.3. Late/Early Arrivals

The last type of correction has also to do with a frequent situation with the costumers, containers and the terminals who own the stacking zone. The client must be presenting the equipment in a specific lapse of time, but for some reason the unit arrives early or late.

In this case, the customer informs CCNI's sales person who contacts the terminal to ask for a time extension. Once it is authorized, they send me an email requesting to inform the unit number, BK o B/L (if it already exists) and we proceed to incorporate a fee of USD 100 for dry units and USD 150 for reefer ones.

2. CHAPTER II: Theoretical Framework

The theoretical framework of this is report is based, first on the history and development of the maritime documentation over the years and how the evolution of the markets, products and principally need of standardization has made the B/L the most important document in international trade. Second, the theory of total quality establishes how a company should operate to achieve optimal service for its customers

2.1. The Bill of Lading

The Bill of Lading⁵, is a formal document used in the maritime transportation which can be issued by a shipping company (Carrier Bill of Lading) or issued on behalf of the captain in order to prove the reception of the cargo on board of the vessel to be transported to a certain place in the consigned conditions. Three originals and several non-negotiable copies are usually issued being strictly necessary to present an original to discharge and remove the merchandise from the terminals, which is a common practice applied worldwide by terminals to guarantee that cargo is delivered to the owner of the same.

The appendix number 5, is a complete description of the history of this documents and the stages through which it has passed, its functions for the users, being shippers, consignees, shipping companies, ports, financial institutions, etc. The characteristics of this document are described including all the literal requirements and elements which help to determine the type.

2.2. Theory of Quality, origins and trends

Just as the improvement or the desire to do things better, has led humankind to develop technologically and culturally, this spirit has made items such as shipping to achieve a high level of specialization and search for better quality.

As the concept of quality, maritime documentation has passed through this century from a stage where it did not exist as a systematic task to another, where quality assurance starts from the design of the transportation system and its respective process. This has meant that the shipping companies understand the concept of quality not only as the efficient transport of cargo across the oceans of the world, but as a complete logistics service where the only way to

⁵ DAVALOS, C. (1992). Titles and Credit Operations. 4th ed. Mexico City: OXFORD, pp.520-545.

differentiate itself from its competitors is with the creation Value Added through the service that is provided to customers. There is a fundamental duality here: whereas creating value is an inherently cooperative process, capturing value is inherently competitive (Brandenburger and Nalebuff, 1997).

The documentation has its stages reflected in how the concept of quality was incorporated in the minds of the shipping entrepreneurs:

- **Inspection:** (19th century) that was characterized by the detection and solution of problems due to the lack of uniformity of the documentation, when anyone could proclaim ownership of a particular cargo, given that there is no consensus on what a document should contain.
- Statistical Control of the Process: (decade of the thirties), focused on the control of the entry and exit of goods from a country-state. The need to apply statistical methods for the same purpose and for the reduction of smuggling or simple illegal traffic of goods.

This is how in 1945, Feigebaum published his article "Quality control: principles, practice and administration" as a management tool for improving product quality. In that time, it only applied to industrial or technological companies of those years. Decades, in which the shipping business began to develop because of World Wars and the very first notions of globalizations and international trade concept. It can be said that in those years ordinary people did not fully understand the benefits of the so-called free market, where and what they had come to change their lives.

• Quality Assurance: (1950s), which is when the need to involve all the institutions arises, whether they are shippers, charterers, banks or customs, all had to agree on the design, characteristics and legal implications of the document in question. For this purpose, it is transcendental that all areas of each of these participants were in full knowledge and focused on the same purpose.

Later on 1961, this article led to Feigebaum masterpiece "Total Quality Control".

⁶ Hayek, F. and White, L. (2007). The pure theory of capital. 1st ed. Chicago: University of Chicago Press.

• Total Quality Management: (1990s), given the high competitiveness that seized the industry, the emphasis was placed on the market and its needs, recognizing the strategic effect of the quality of service in the competitive process. And as in many cases, customers prefer to pay a little more for good service.

2.3. Total Quality Control

Armad V. Feigenbaum, (Nueva York, Nueva York, April 6th, 1922 - Pittsfield, Massachusetts, November 13th, 2014)⁷ is the creator of the concept of total quality control, in which he states that quality is not only responsible for the production department, but also requires the entire company and all employees to achieve it. In order to build quality from the initial stages and not when everything is already done.

When this short description of his theory is applied to any shipping company and its commercial & operative flux, it can be deduced that when there are incurred costs of prevention such as a correct commercial tariff planning and business intelligence, due training of the people working in agencies in their different processes, coupled with the application of effective quality control, future errors can be significantly reduced.

The author also proposes that the current processes should be re-evaluated at all stages, that is, put them to the test to determine if any of these are failing or if unnecessary costs are being generated. For this, it would be necessary to begin analyzing and testing the Compass ERP system, the commercial guidelines for each market, the Pricing area, the Results are, Operations and of course the Documentary process. To achieve the latter, there is a database that gives all relevant information, from the most general to the most specific needed for this purpose.

It should be clarified that in order to limit the scope of this study, only the documentary process of CCNI will be analyzed, mainly involving the agencies, the Pricing area and the Department of Compass Support, which is where the observer is located.

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⁷ Es.wikipedia.org. (2017). Armand V. Feigenbaum. [online] Available at: https://es.wikipedia.org/wiki/Armand_V._Feigenbaum [Accessed 10 Jan. 2017].

2.4. 5P's Model

In the article published by Golden, Toombs, Donna & White (2016) in Journal of Management and Marketing Research, establish that the use of quality initiatives will help businesses: 1) Document and improve processes; 2) Understand customer requirements and ensure that their products and services meet those requirements; and 3) Streamline relationships between internal customers and suppliers and employees of the business and external customers and suppliers. However, small organizations, as it can be considered CCNI with less than 1% of the market share compared to industry leaders like APMMaersk with 15,1% of market participation, Mediterranean Shg. Co. with 13,5%, CMA CGM Group 8,4%. Have been less likely to use strategic management models and strategic planning concepts than large organizations for many reasons: 1) Small organizations are often family-owned (as CCNI is); 2) Small business leaders are often more focused on day-to-day operations as opposed to management models and strategic management systems; (3) Small businesses have less money to spend on training; and (4) Their competitors generally operate the way they do – without using management models and implementing improvement systems.

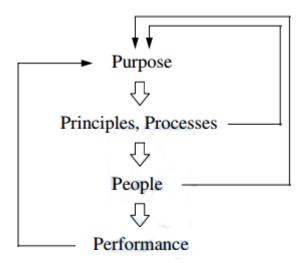
The elements of this model, are Principles, Processes, People, Performance and for pneumonic reasons, the authors call the strategic management, Purpose. The 5P's Model and the alignment of the 5P's are depicted as follows:

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⁸ Pryor, M., Toombs, L., Anderson, D. and White, J. (2016). What Management and Quality Theories Are Best for Small Businesses?. Journal of Management and Marketing Research, [online] pp.1-12. Available at: http://www.aabri.com/manuscripts/09208.pdf [Accessed 16 Jan. 2017].

⁹ Expansión. (2013). Las 6 navieras 'dueñas del mar'. [online] Available at: http://expansion.mx/especiales/2013/05/20/3-cma-cgm [Accessed 22 Jan. 2017].

Figure 2: The 5P's Model



Sources: Pryor, M. G., White, J. C., and Toombs, L. A., Strategic quality management: A Strategic, Systems Approach to quality, Thomson Learning, 1998.

Pryor, M. G., Anderson, D., Toombs, L. A., Humphreys, J. H. (2007). Strategic implementation as a core competency: The 5P's model. Journal of Management Research, 7(1), 3-17.

The arrows in Figure 2 depict the connection between strategy (Purpose) and structure (Principles as internal structures and Processes as external structures) and the influence of structures on employee behavior (People) and corresponding results (Performance).¹⁰

2.4.1. Purpose

According to 5P's Model, the purpose of an organization involves CCNI's misión, vision, goals and objectives, as well as strategies for achieving the same. In this sense, the leaders of the Company must establish the strategic directions and goals as well as the strategies and tactics for achieving them. Given that strategies drive structure (Chandler, 1962), Processes and Principles should be aligned with Purpose.

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¹⁰ Pryor, M., Toombs, L., Anderson, D. and White, J. (2016). What Management and Quality Theories Are Best for Small Businesses?. Journal of Management and Marketing Research, [online] pp.1-12. Available at: http://www.aabri.com/manuscripts/09208.pdf [Accessed 16 Jan. 2017].

2.4.2. Principles

These are the guiding philosophies, assumptions, or attitudes about how CCNI should operate and conduct business. As a family Company, they are the integrity base, ethics, and core values to which employees are expected to make a commitment when they are hired. The leaders must understand upon which CCNI was founded and which they currently operate. However, they may or may not understand how to convey those principles to their employees or how to align principles with the other elements of the 5P's Model.

2.4.3. Processes

These are CCNI's organizational structures, systems, and procedures that are used to make the transportation service that the Company provides, as well as the infrastructure and rules that support these systems and procedures. Performance appraisal methods, communication patterns, and documentary systems are examples of processes. In small organizations, processes are generally defined by the people doing the job and are often not well documented. It is difficult to manage and improve (or even replicate) undocumented processes. Therefore, in CCNI all processes are documented by checklists, process maps, or process flowcharts. When streamlined Processes are well documented and Principles are well communicated can drive behavior that is necessary to achieve Performance excellence.

2.4.4. People

They are the employees of the Company (individuals and teams) who perform work that is consistent with the Principles and Processes of CCNI to achieve its Purpose. They are the active components through which work results are accomplished. Purpose, Principles, and Processes must be in place before People can be consistently effective. If the leaders understand and can align Purpose, Principles, Processes, and People, they are more likely to achieve Performance excellence.

2.4.5. Performance

Performance encompasses all the metrics, measurements, and expected results that indicate the status of the CCNI and are used as criteria for decision making. Performance results are fed back into the strategic management process to provide a means of feedback and control.

It is essential that CCNI leaders understand and establish measurement and feedback systems for the Company long-term survive and profitability. It is not enough just to understand and apply the elements of the 5P's Model separately. The 5P's must be aligned with each other in order to achieve máximum efficiency and effectiveness. For example, if CCNI want People to work in teams like the agencies and documentation departments, they must set up Processes to measure and reward team success, not just individual employee success. If one of the organization's core values (Principles) is performance excellence, then Performance must be evaluated and improved.

3. CHAPTER III: Methodology Framework

3.1. Collecting Variables

According to the Business Dictionary definition, a variable is number, or quantity that increases or decreases over time, or takes different values in different situations. And there are two basic types: 1) Independent variable: that can take different values and can cause corresponding changes in other variables, and 2) Dependent variable: that can take different values only in response to an independent variable.¹¹

In order to fulfil the objectives of this report, the first step to take is to apply a sectional investigation which is based on collecting the information about the object of the study, in this case, the documentation process. As explained previously, this procedure is carried out through an ERP software called Compass, which generates a monthly report sent by the IT department to the entire organization, it consists of a database of all B/L containing rough data about the process. It starts with a quotation QT numeration, then a booking or reservation and finally a Bill of Lading, each of these steps incorporates new variables to the investigation as mentioned previously when describing the documentary process:

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¹¹ BusinessDictionary.com. (2017). Good one to know!. [online] Available at: http://www.businessdictionary.com/definition/variable.html [Accessed 22 Jan. 2017].

Chart 8: Collecting variables.

| Stage | Variable | |
|----------------|-------------------|---------------------|
| | QT Numeration | |
| | Customers | |
| | Rate | |
| Quotation | Rate Validity | |
| Quotation | Period | |
| | Commodity | |
| | Port of Loading | |
| | Port of Discharge | |
| | BK Numeration | |
| Booking | Vessel | |
| Dooking | Voyage | |
| | Bound | |
| | Corrections | |
| | Agency | |
| | B/L Numeration | |
| | | Late Negotiation |
| Bill of Lading | | Not Informed Update |
| | Corrections | Human Error |
| | | Pricing Error |
| | | Compass Error |

Source: Own development (2016)

3.2. Definition of Variables

- **QT Numeration:** Correlated number automatically generated by ERP. It is used to access the information requested and given in a quote. Independent.
- **Customers:** Natural or legal person who requests a quote. The customer is the owner of the quote. Independent.
- Rate: Monetary value that takes a quote. It depends on the client, the route, the date and the ports.
- Rate Validity Period: Term of validity in which the value of the quote can be used. Dependent.
- **Commodity:** For purposes of this study we will not use a definition of a book, but rather a practical one. A commodity is the type of cargo you want to transport. Independent.

- **Port of Loading:** It is the port by which the goods are to be shipped and from where the maritime phase of the logistics chain begins. Independent.
- **Port of Discharge:** It is the port by which the goods are landed and where the maritime phase of the logistic chain ends.
- **BK Numeration:** Correlative number assigned to a space reservation in a ship. This variable depends on the information contained in the quote on which the reservation is based.
- **Vessel:** It is the medium used in maritime transportation. Independent.
- **Voyage:** Correlative number assigned to a certain trip of a vessel. Depends on the vessel.
- **Bound:** Each travel number has a meaning, which can take values North, South, East or West. Depends on the voyage.
- **Corrections:** As before, we use the practical definition for objects in the study. A correction is a request to amend something that is erroneously stipulated in a reservation. Depends on almost every other variable.
- Agency: The customs agent is an auxiliary professional of the public customs function, whose license entitles him to the National Customs Service to provide services to third parties as a manager in the freight dispatch. ¹² In addition, for purposes of the study, we will focus on the documentary and customer service role it fulfills for the shipping company. Independent.
- **B/L Numeration:** Correlative number assigned by Compass to refer to a B / L, contains all the information previously incorporated in the quotation and reservation. Dependent.
- **Corrections:** Practically, is an amendment request for the B/L. The reason for the request are:
 - Late Negotiation: Correction requested due to a commercial agreement that took
 place after the departure of the vessel and the closure of the B/L. Dependent.
 - Not Informed Update: Correction because of and update in the commercial policy of the company that is unknown for the agency. Dependent.
 - Human Error: It is a correction that is due exclusively to the error of a worker, typographical, spelling, and numerical, etc. Dependent.

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¹² Aduana.cl. (2017). *Servicio Nacional de Aduanas - Agentes de Aduana*. [online] Available at: http://www.aduana.cl/agentes-de-aduana/aduana/2012-04-27/094321.html [Accessed 22 Jan. 2017].

- Pricing Error: It is an error of the pricing department in charge of updating the values or conditions in the ERP system. Dependent.
- Compass Error: It is an error of the ERP software. It can affect any part of the process with extensive ramifications. It can only be solved by the developer.
 Dependent.

According the standard methodology of investigation, so that a variable can be applied in an evaluation model, the first condition that must have, is that they are measurable in a discrete way, meaning that the can only take integers, (1,2,3, etc.). The second condition for the variable to be applied to the object of study and subsequent evaluation of it, is essential that the variable is relevant, i.e. closely related to the phenomenon studied.

For each of the conditions described above, we will first use the first condition, that is, determine if they can be measurable and in what way. When applied, this condition reduced the variables of the original total from 19 to 14, that is, 26.3%. Two basic mathematical conditions will be used to determine how variables can be measurable or quantitated. The first is summation, which is a mathematical operation that is used to calculate the sum of many or infinite sums¹³. The second is directly, because the variable is itself a numerical value.

The second condition that will be applied is relevance. As explained above, it is an abstract noun applied to something that is important. It refers to the strength or intensity that a variable has to affect to another end user of it. As can be seen in the following table, each one was analyzed under this criteria.

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¹³ Columbia.edu. (2017). Summation Notation. [online] Available at: http://www.columbia.edu/itc/sipa/math/summation.html [Accessed 22 Jan. 2017].

Chart 9: Applying basic definitions.

| Va | riable | Measurable | How? | Relevance |
|----------------------|---------------------|------------|-----------|---|
| QT Numeration | | Yes | Summation | No, only issued B/L correction are evaluated. |
| Customers | | Yes | Summation | Yes, principal affected in field observation. |
| Rate | | Yes | Directly | No, the rate itself is not relevant. |
| Rate Validity Period | | No | | |
| Commodity | | Yes | Summation | No, the invovled commodity is not relevant. |
| Port of Loading | | No | | |
| Porf of Discharge | | No | | |
| BK Numeration | | Yes | Summation | No, only issued B/L correction are evaluated. |
| Vessel | | No | Summation | No, the vessel is not relevant |
| Voyage Number | | Yes | Directly | |
| Bound | | No | | |
| Corrections | | Yes | | No, only issued B/L correction are evaluated. |
| Agency | | Yes | Directly | Yes, subjet to evaluation. |
| B/L Numeration | | Yes | Summation | Yes, represents the volume of production. |
| | Late Negotiation | Yes | Summation | Yes, controlled by commercial area of agencies. |
| | Not Informed Update | Yes | Summation | Yes, controlled by commercial area of agencies. |
| Corrections | Human Error | Yes | Summation | Yes, must be avoided. |
| | Pricing Error | Yes | Summation | Yes, Headquarters responsability. |
| | Compass Error | Yes | Summation | Yes, IT responsability. |

Source: Own development (2006)

When applying these two basic conditions, it is observed that the number of variables are reduced drastically. From the original 19 variables founded in the first stage of this investigation, it was possible to reduce them to only 4 main ones; the agency, the summation of customers, the summation of Bs/L and the corrections after the documents are issued.

3.3. Elaborating the Evaluation

Once the variables are defined, the next step is to apply same variables to the B/L database. As it is appreciated on Appendix 6, the first variable to consider is the summation of all the agencies, giving a total quantity of 50 offices distributed all over the world. Second, for evaluation purposes, the customer variable will be considered twice, one is the summation of all the customers that each agency attends and the other, is the number of customers affected with corrections. Third, the total quantity of issued Bs/L and finally the number of corrections.

In order to include all the selected variables in the evaluation, these are weighted from two different angles which ultimately are averaged to obtain a final evaluation: • :In the first place, and with the purpose of measuring the performance from a production volume point of view, the total number of issued Bs/L against the number of requested corrections in the period are evaluated by percentage and subsequently, scored under the following ranks¹⁴:

| Scale (%) | Score |
|-----------|-------|
| 0 - 1 | 5 |
| 1,1 - 3 | 4 |
| 3,1 - 5 | 3 |
| 5,1 - 10 | 2 |
| >10,1 | 1 |

Source: Own development.

 Secondly, the percentage of customers affected by poor performance is measured and tabulated as follows:

| Scale (%) | Score |
|-----------|-------|
| 0 - 5 | 5 |
| 5,1 - 10 | 4 |
| 10,1 - 15 | 3 |
| 15,1 - 20 | 2 |
| >20,1 | 1 |

Source: Own development

• At last, the two obtained scores are averaged in order to get a complete evaluation:

| Final Score | Action |
|--------------------|--|
| 5 | Congratulate by message |
| 4 - 4,5 | Congratulate and give tips to improve. |
| 3 - 3,5 | Give tips to improve. |
| 2 - 2,5 | Urgent Training |
| 1 - 1,5 | Urgent Training/Warning |

Source: Department guidelines (2013)

¹⁴ Range (statistic) the difference between the lowest and the highest value. In {4, 6, 9, 3, 7} the smallest value is 3, and the largest is 9, then the range is 9-3 equal to 6. Range can also mean all result values of a function.

According to the quality costs that a company will have to incur in their budgets to improve the quality of the service, and despite the fact that the errors come from inside or outside the organization, it can be said that this evaluation measures the conditions of the documentation service and test the process to avoid failures, therefore will have to incur in hours of training according to the level of urgency.

It should be noted that the previous table with the actions to be taken regarding the qualifications obtained, will consider a strong warning for the agencies with red notes, which if not improved in the following period, will cause CCNI to evaluate the continuity of the partnership.

4. CHAPTER IV: Results

As a result of the evaluation system designed in the previous chapter, we have the following new information:

4.1. Totals

During the period covered by the information contained in the database, it is observed that all the agencies issued Bs/L and requested for corrections, but despite that only the 2,74% of Bs/L were corrected after closed, the 10,62% of the total CCNI's customers received incorrect documents and asked for corrections.

• Total number of agencies: 50

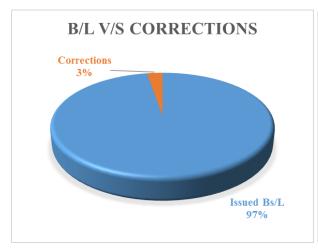
• Total number of customers: 3.069

• Customers affected with corrections: 326

• Total issued Bs/L: 27.569

• Total corrections: 756

Graphic 1: B/L v/s Corrections



Graphic 2: Affected Customers

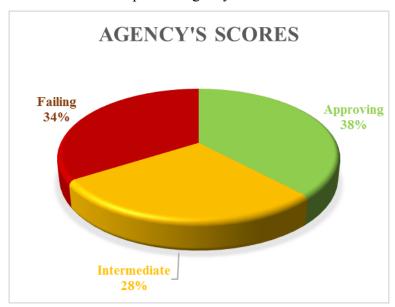


Source: Own Development

4.2. Analysis of results

As can be seen in the results obtained below, less than the half of the agencies are having satisfactory performances for the company and the customers, on the other hand the 62% of the universe are failing in performance, damaging the quality of CCNI's services and will require training costs.

- There are 19 agencies with approving scores.
- There are 14 agencies with intermediate scores.
- There are 17 agencies with failing scores.



Graphic 3: Agency's Scores

Source: Own Development

Considering that the mean of the grades is slightly lower that median, it can be said that there is plenty of room for the service to improve.

• The mean is: 3,34

• The median is: 3,5

• The mode is: 3,5

• The range is: 1-5

Finally, the five best and worst performing agencies respectively are presented below.

- The top 5 performing agents are:
 - o Shenzhen, China
 - o Kolkata, India
 - o Mumbai, India
 - o Madrid, Spain
 - o Dubai, United Arab Emirates
- The 5 agencies with the worst performance are:
 - o Monterrey, Mexico
 - o Guangzhou, China
 - Malaysia, Malaysia
 - Cali, Colombia
 - o Cartagena, Colombia

5. CHAPTER V: Conclusion & Discussion

It is correct to say that based on the general objective propose in this report, the variables were analyzed satisfactorily, throwing information with which it is possible to work and obtain valuable information for the organization, in relation to the performance in the documentary process carried out by the agencies.

A fairly broad universe of variables was identified, which were described to determine its relevance. The relationships between them were then mathematically analyzed in order to assess what are the variables that are useful for a deeper later analysis.

As to the questions formulated at the beginning of this study, they have been answered as follows:

- What are the variables that should be considered in the agency evaluation system?
 Those would be the identification of agencies, the summation of customers, the summation of Bs/L and the corrections after the documents are issued.
- How do these variables interact with each other to measure different aspects?

- This analysis reveals two main types of interaction between variables. Firstly they relate to provide information regarding the volume of production that has the documentary area of the agencies. And second, they deliver information regarding performance from the point of view of customers.
- How to mix these relationships so they deliver information relevant to the study?
 - O Also, we find a third interaction that can be deduced, this is that when analyzing mathematically it delivers valuable information regarding the documentary production process. For example, which are the agencies with the best and worst performance, the number of clients that attend each one corresponds to a key aspect of the market that is important for CCNI to know.

According to my opinion, the most relevant information that emerged from this analysis is that when applying the ranks and guidelines delivered by the commercial department, it is seen that a very high percentage of agencies are not satisfactorily fulfilling the quality guidelines of the company. Due to this and based on the conceptual framework of this report, it can be deduced that company policies and standards are not reaching all areas of the organization and therefore, CCNI must find a more effective way of communicating this information, improve the structure according to the company's purposes and review its processes to meet the objectives set by its leaders.

The only way a small company like CCNI or any other company can fight against the big competitors in a global market is to differentiate between delivering a quality service to stop its customers, which in short, are their most important asset.

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7. APPENDED DOCUMENTS

7.1. Appendix 1: The main Company stockholders at December 31, 2013

| NOMBRE | ACCIONES | PORCENTAJES |
|--|-------------|-------------|
| | | |
| Grupo Empresas Navieras S.A. | 676,726,199 | 74,01% |
| Moneda S.A. AFI P/Pionero Fdo. de Inversión | 81,172,000 | 8,88% |
| Fondo de Inversion Larrain Vial Beagle | 43,611,957 | 4,77% |
| Celfin Small Cap Chile Fondo de Inversión | 26,132,683 | 2,86% |
| Chile Fondo de Inversión Small Cap | 20,351,662 | 2,23% |
| Celfin Capital S.A. Corredores de Bolsa | 19,126,253 | 2,09% |
| Siglo XXI Fondo de Inversión | 9,008,273 | 0,99% |
| Compass Small Cap Chile Fondo de Inversión | 6,419,992 | 0,70% |
| Moneda SA Afi para Moneda Chile Fund Ltda | 4,580,000 | 0,50% |
| Banchile Corredores de Bolsa S.A. | 2,984,710 | 0,33% |
| Airmania Travel S.A. | 2,787,449 | 0,30% |
| MS Elisabeth Rickmers Schiffsbeteiligungsgesellsch | 2,392,400 | 0,26% |
| Otros Accionistas | 19,125,371 | 2,08% |
| TOTAL | 914.418.949 | 100,00% |

Source: CCNI, official web site http://www.ccni.cl, 2013

7.2. Appendix 2: GEN's stockholders at December 31, 2013.

| NOMBRE | ACCIONES | PORCENTA JE |
|---|---------------|-------------|
| NAME | STOCKS | PERCENTAGES |
| Inversiones Tongoy S.A. | 1,446,813,294 | 20,94% |
| Sociedad de Inversiones Paine S.A. | 1,446,813,293 | 20,94% |
| Axxion S.A. | 1,017,449,607 | 14,72% |
| Euro Inversiones S.A. | 530,731,543 | 7,68% |
| Celfin Small Cap Chile Fondo de Inversión | 457,921,806 | 6,63% |
| Celfin Capital S.A. Corredores de Bolsa | 430,277,240 | 6,23% |
| Soc. Nacional de Valores S.A. | 358,140,339 | 5,18% |
| Del Bene Inversiones S.A. | 318,673,021 | 4,61% |
| A.F.P. Provida S.A. Fondo de Pensiones C | 160,986,060 | 2,33% |
| A.F.P. Habitat S.A. para Fondo de Pensiones C | 96,055,891 | 1,39% |
| Banchile Corredores de Bolsa S.A. | 95,037,259 | 1,38% |
| Chile Fondo de Inversión Small Cap | 93,398,527 | 1,35% |
| Other | 457,532,022 | 6,62% |
| TOTAL | 6.609.829.902 | 100,00% |

Source: CCNI, official web site http://www.ccni.cl

7.3. Appendix 3: BL Amendment Request

| N° | BL Number * | BL Status * | Date of Receipt Cargo * | POR | POL | POD | PFD | Charge Code * | Currency * | Now Reads | Should Read * | Increase / Decrease | Authorized from / Backing ** | Amendment Reason *** |
|----|-------------|-------------|-------------------------------|-----|-----|-----|-----|---------------|------------|-----------|---------------|------------------------|---------------------------------|-------------------------|
| 1 | | | | | | | | | | | | - | | |
| 2 | | | | | | | | | | | | - | | |
| 3 | | | | | | | | | | | | - | | |
| 4 | | | | | | | | | | | | 1 | | |
| 5 | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | |
| | Totals | | | | | | | | | - | - | - | | |

- * Mandatory for All Users.
- **Authorized from / Backing (options to fill lit): Customer's tender (name, code), QT (N°), Service Contract (N°), General Tariff Rates, Special Agreement approved by, Other particular backing.

- *** Clarify if Amendment Reason correspond to:

 Agency Mistake at Booking

 1 Incorrect customer code or name
 2 Incorrect QT number (inform the correct QT number)
 3 Special conditions not included in booking,
 4 Incorrect information included at special conditions
 5 Specify other particular error
- Compass Error

 1 Date of receipt
 2 Modification requested at booking level but it was not done in time
 3 Incorrect rate at compass for route or customer
 4 Correct route not found (attach message interchange with CCNI Compass Support)
 5 Specify other particular error

Source: http://intranet.ccni.cl/

7.4. Appendix 4: COD Requirement

| | COD R | EQUIREMENT | |
|------------------|--|--------------------|--|
| | | | |
| Vessel | | Voy/Bound | |
| BL | | | |
| Container | | | |
| POR/POL | | POD / PFD | |
| | | NEW POD/PFD | |
| N° of Quot | e | | |
| 300 rf per | where will pay the BL (apply in case change it, add it o | of change of PO | |
| Operative | charges involved: | | |

Source: http://intranet.ccni.cl/

7.5. Appendix 5: Description & History of the Bill of Lading

History¹⁵

In ancient times, this document was not used, since generally, the ship-owner, captain and owner of the goods were the same person. Subsequently in the middle ages, once the goods were shipped, same were accompanied by the merchant, hence it is illogical to think about the existence of this document.

It is not until the birth of the correspondents abroad, agents or representatives of the merchants, when it is no longer necessary for the latter to accompany his cargo on the ship. The first antecedent of the Bill of Lading is the registration of the goods aboard in the cartulary of the ship.

In the fifteenth century appears the captain's receipt for the goods loaded, later in sixteenth century, due to the development of maritime insurance of the merchandise, this receipt acquired greater importance. As such, the receipt was in hands of the shippers who made this based on the guides of the consignees, very similar to the ones used nowadays in land transportation. However, as this documents were easily modified to make frauds, thus they had to combine both, giving birth to the Bill of Lading.

In this matter, without a doubt, we must recognize that mankind owes much to Italian City-States of the sixteenth century; where practically emerged the modern maritime law and the most important figures such as insurance, banking, credit and bill of lading among others.

Stages¹⁶

- Simple receipt of goods, up to 1590. We must take in to account the great advances of the fifteen century, especially the discovery of America on 1492, which would be decisive.
- Proof of the existence of the contract for the carriage of goods by sea, starting in 1590, when there are already genuine standard forms, for example, the Dutch and Spanish, of which still today formulas of current bills of lading are collected.
- The characteristics of representativeness of the goods appear at the end of the seventeenth century, however will be much discussed throughout the eighteen century.

¹⁵ essDOCS. (2017). Bill of Lading History. [online] Available at: http://www.essdocs.com/resources/bl-history [Accessed 2 Jan. 2017].

¹⁶ DAVALOS, C. (1992). Titles and Credit Operations. 4th ed. Mexico City: OXFORD, pp.505-515.

- Under the pressure of the increased world trade, arose from the industrial revolution originated in Great Britain, the bill of lading acquires his force, enshrined in the laws themselves. Already in 1807 is included in the Code of Commerce of Napoleon.
- The bill of lading "received for shipment", appears at the end of the nineteenth century, following the application of the steam engine to vessels and the creation of the first line services.
- This document will be discussed for many years. But it will not be until the adoption of the Hague-Visby Rules, through the Brussels International Convention for the Unification of Certain Rules in the Field of Bill of Lading, on August 24th, 1924, that this type of document acquires title of naturalization, being today one of the most common.

There are a number of explanations for why three original B/Ls were issued in those early days:

"Of these Bills of Lading, there is commonly three Bills of one tenor made of the whole ship's lading... These Bills of Lading are commonly to be had in print in all places and several languages. One of them is enclosed in the letters written by the same ship, another is send overland to the factor or party to whom the goods are consigned, the third remained with the merchant, for his testimony against the Master, if there were any occasion for loose dealing; but especially it is kept for to serve in case of loss, to recover the value of the goods of the assurors that have undertaken to bear the adventure with you." But, unless there is some pragmatic reason for having multiple originals, it's a good idea to avoid doing so. 18

Functions¹⁹

The following functions are disabled from the concept:

• Simple receipt of the goods on board the ship, or received for boarding by the ship-owner or his shipping agent.

¹⁷ MALYNESS, G. (1629). The Ancient Law Merchant. 1st ed. pp.97-101.

¹⁸ BARRETT, Colin Joc.com. (2017). FOR B/LS, STICK TO THE KISS PRINCIPLE. [online] Available at: http://www.joc.com [Accessed 6 Jan. 2017].

¹⁹ DAVALOS, C. (1992). Titles and Credit Operations. 4th ed. Mexico City: OXFORD, pp.322.

- Proof of the existence of a contract, the transport of goods by sea. In this sense, the
 contract is defined as that by which one, the carrier, is obligated in front of the other, the
 shipper, by paying a price called freight to deliver the merchandise at destination in the
 same condition in which he received it.
- Finally, it is a title representative of the merchandise, and as a true title of credit that is given in front of the maritime agent of this.

Characteristics²⁰

- **Incorporation:** The title value carries with it an incorporated right, that is to say the right is attached to the title and its exercise secondarily to the exhibition and delivery of the document.
- **Legitimation:** It allows the holder to demand from the obligor the payment or the fulfillment of the provision recorded in the document. This legitimation is not only active, but also passive, meaning that allows the debtor to release the obligation by covering the amount o releasing the goods to whoever presents the document.
- **Literality:** The right in this type of documents is recorded in the extension and other circumstances that are expressed in the text of the document, or what is written on it.
- **Autonomy:** This does not mean that the document is autonomous, nor the right incorporated in it, but the autonomy that each successive acquirer has of the other on the title itself.
- **Representativeness:** Means that it incorporates a real right over the goods represented by the title, that is, it incorporates a right of ownership.

This 5 Characteristics have great importance in the practical and real world of the maritime transportation, as it is said by Colin Barrett in his article, when a dispute has arisen in circumstances where the shipper loads without a carrier representative present or in a position to verify the count and then demands that the driver sign a B/L showing a specific number of units. When a lesser number is unloaded at destination, the shipper or consignee will file claim for the

²⁰ DAVALOS, C. (1992). Titles and Credit Operations. 4th ed. Mexico City: OXFORD, pp.341.

alleged shortage, citing the signed bill as "proof" that the goods did in fact go missing while the shipment was in transit in the carrier's possession.²¹

Literal requirements and personal elements

Like any title of credit, the bill of lading must require certain literal data in its text; these are:

- Name, address and signature of the transporter-ship.
- Name and address of the shipper, who is the borrower of the transportation service.
- Name and address of the person to whose order the knowledge is issued (as it may be
 issued to the order of person other than the shipper) who will be the consignee, or the
 indication of being a bearer.
- Bill of Lading number.
- Specification of the goods object of knowledge, with indication of their nature, quality and other circumstances useful for their identification.
- Indication of the cost of freight and other transportation costs, transportation charges (per cubic meter, bulk, weight, etc.), indicating that they have already been paid or are to be collected.
- Indication of the output and destination ports.
- Name and registration of the vessel in which the merchandise will be transported in the case of a transport by designated ship.
- Bases to determine the compensation that the carrier will pay the shipper in case of loss
 or damage, since the carrier will be responsible for any damages or damages suffered that
 are attributable to him.
- The shipper may leave his merchandise on board the vessel, on the dock or in the hold. In the first case, a bill of lading will be issued and in the second, knowledge of reception will be issued for shipment; The first must meet the above mentioned literality and the second must also meet the following:
 - The mention of received for shipment.

²¹ BARRETT, Colin. Joc.com. (2017). B/L HOLD THE TRUTH. [online] Available at: http://www.joc.com [Accessed 6 Jan. 2017].

- The indication of the place where the merchandise is stored, as long as they are shipped.
- The stipulated term for the shipment.

On this respect, and considering the importance and legality of a B/L among others maritime documents, any difference or mistake that may have been stated wrongly in the B/L information can produce great damage and costs for one or more of the involved parties in the operation, the B/L is the contract between the shipper and the carrier, and if the contract shows the carrier received for example 2,285 units and delivered 2,307 units, it is very doubtful that a court would even allow a tally sheet²² to be introduced into evidence if the matter came to trial, and certainly wouldn't accord it anything close to the weight of the contractual document.²³

Main Involved Parties

In this way we can determine the number of participants in the knowledge boarding as well as loading the obligations that correspond to each one. So are the following:

- The **Shipper**, borrower of the transport service, that is, who requests the service and delivers the goods of his property.
- The **Shipping Company**, who is the owner of the ship or the shipping company that will be responsible for loading and transporting the goods received, and against which the knowledge is issued.
- The **Master of the Ship**, who is responsible not only of the ship but, in front of the shipper, of the goods shipped.
- The **Consignee**, who is the person to whom the goods are destined and the only one to be delivered, if he does not transmit the bill of lading, because if so, it will be delivered to the second. It is common for the shipper to be designated at the same time consignee.

²² Merriam-webster.com. (2017). Definition of TALLY SHEET. [online] Available at: https://www.merriam-webster.com/dictionary/tally%20sheet [Accessed 21 Dec. 2017].

²³ BARRETT, Colin. Joc.com. (2017). B/L HOLD THE TRUTH. [online] Available at: http://www.joc.com [Accessed 6 Jan. 2017].

Classes of Bill of Lading²⁴

There are several kinds of bills of lading:

According to de destination of the merchandise in the vessel:

- **Shipped or ordinary:** It is the one extended when the goods have already been ship on the vessel, we can say that is the traditional bill of lading.
- **Received for shipment:** The one issued when the goods are delivered to carrier before the arrival of the ship, in order to achieve rapid negotiation of documents and bank documentary credits, allowing the circulation of capital and wealth, therefore, facilitating the celebration of the Purchase-Sale contract CIF.

According to the person or the holder of the bill of lading:

- **Nominative:** Document where the name of the consignee of the merchandise or the shipper is recorded, whereby it is the qualified person to demand from the carrier the delivery of the goods at the port of destination.
- To the order: It is that where the name of the consignee or the shipper is recorded, but putting the expression "to order", of course, its transmission is made by the simple endorsement, through which the transferor or endorser transmits his rights to the assignee or endorser, thereby subrogating all rights of the first. Endorsements can be unlimited, so it is the most used for ease of negotiability; Many times it is put to the order of a banking institution that can be the creditor in a simple or confirmed credit.
- To the carrier: It is that where it is not expressed nominally, nor to the order, the consignee or the shipper in its case, always being legitimized any holder of the document. However, this form represents the most easily circulated bill of lading, it is very little used because of the danger represented by the loss of the document, since it would mean that the one who found it could easily dispose of the merchandise.

²⁴ GUERERO, S. (2017). CONOCIMIENTO DE EMBARQUE. [online] Scribd. Available at: https://es.scribd.com/doc/27660543/CONOCIMIENTO-DE-EMBARQUE [Accessed 8 Dec. 2016].

According to the transportation mode:

• **Mixed:** It is that which covers all the means of transport to which a certain cargo is subjected. For example, a merchandise sent from Santiago to that of Vancouver, would be protected by this bill of lading, even if for that, have to use the air, sea or land. So the bill of lading, takes a specific name according to the mode of transport; if it is by sea, it will be called Bill of Lading; by air, Air Way Bill or Air Guide; by land, Rail Road Bill of Lading. In the case of sea transportation, this can be divided in the followings:

■ B/L on board.

■ B/L to the order.

■ B/L to the bearer.

■ B/L House.

B/L Nominative.

■ B/L without transshipment.

Sea Way Bill

■ Through B/L.

• **Direct:** It is the whole of maritime transport, that is to say, from the port of origin, including the necessary transshipments, to the port of destination of the goods.

According to the time of payment:

• **Prepaid:** The one paid in the port of loading.

• **Collect:** The one to be paid at disport.

According to the type of formed used:

• Long way: The form that contains all the clauses printed on the bill of lading.

• **Short form:** The form that does not contain all the clauses.

According the ease of commercial negotiation of the document:

• **Negotiable:** The one whose transfer, assignment or endorsement can be adjusted or agreed.

• **Non-negotiable:** They will be those that cannot be endorsed, transferred or transferred.

According to the existence or nonexistence of annotations in the bill of lading:

- Clean: They are those that do not have annotation some on the part of the officer in charge of the load that almost always is the first officer.
- **Dirty:** They are those that have annotations made by the first officer. Of course, these annotations should be extraordinary and therefore indicate leftovers, missing, spills, breaks, poor packaging, lack of marking or signaling and others.

7.6. Appendix 6: Evaluation System applied to Database.

| Agency | Total number of Customers | Issued Bs/L | Customers Affected with Corrections | Corrections | Corrections x B/L | Score | Total Customers x Affected Customers | Score | Final score |
|----------------|---------------------------------|----------------|-------------------------------------|-------------|-------------------|-------|---|-------|-------------|
| Chile | 70 | 903 | 4 | 17 | 1,9% | 4 | 5,7% | 4 | 4 |
| Qingdao | 75 | 104 | 1 | 2 | 1,9% | 4 | 1,3% | 5 | 4,5 |
| Tianjin | 107 | 550 | 5 | 26 | 4,7% | 3 | 4,7% | 5 | 4 |
| Shanghai | 67 | 797 | 7 | 9 | 1,1% | 4 | 10,4% | 3 | 3,5 |
| Xiamen | 95 | 229 | 2 | 5 | 2,2% | 4 | 2,1% | 5 | 4,5 |
| Guangzhou | 31 | 185 | 7 | 13 | 7,0% | 2 | 22,6% | 1 | 1,5 |
| Ningbo | 66 | 148 | 1 | 16 | 10,8% | 1 | 1,5% | 5 | 3 |
| Shenzhen | 18 | 290 | 0 | 0 | 0,0% | 5 | 0,0% | 5 | 5 |
| Cali | 25 | 554 | 18 | 20 | 3,6% | 3 | 72,0% | 1 | 2 |
| Cartagena | 75 | 256 | 13 | 20 | 7,8% | 2 | 17,3% | 2 | 2 |
| Medellín | 56 | 753 | 4 | 15 | 2,0% | 4 | 7,1% | 4 | 4 |
| Bogotá | 78 | 259 | 2 | 20 | 7,7% | 2 | 2,6% | 5 | 3,5 |
| San José | 29 | 986 | 2 | 6 | 0,6% | 5 | 6,9% | 4 | 4,5 |
| Guayaquil | 86 | 416 | 13 | 28 | 6,7% | 2 | 15,1% | 2 | 2 |
| Quito | 30 | 114 | 1 | 2 | 1,8% | 4 | 3,3% | 5 | 4,5 |
| Guatemala City | 42 | 225 | 5 | 6 | 2,7% | 4 | 11,9% | 3 | 3,5 |
| Hong Kong | 34 | 147 | 1 | 12 | 8,2% | 2 | 2,9% | 5 | 3,5 |
| Chennai | 58 | 78 | 4 | 22 | 28,2% | 1 | 6,9% | 4 | 2,5 |
| Ahmedabad | 34 | 891 | 7 | 10 | 1,1% | 4 | 20,6% | 1 | 2,5 |
| Gandhidham | 35 | 692 | 5 | 27 | 3,9% | 3 | 14,3% | 3 | 3 |
| Jaipur | 11 | 922 | 6 | 8 | 0,9% | 5 | 54,5% | 1 | 3 |
| Tuticorin | 97 | 889 | 14 | 19 | 2,1% | 4 | 14,4% | 3 | 3,5 |
| Cochin | 100 | 881 | 16 | 25 | 2,8% | 4 | 16,0% | 4 | 4 |
| Kolkata | 34 | 727 | 0 | 0 | 0,0% | 5 | 0,0% | 5 | 5 |
| Ludhiana | 87 | 719 | 10 | 18 | 2,5% | 3 | 11,5% | 3 | 3 |
| Mumbai | 57 | 904 | 1 | 1 | 0,1% | 5 | 1,8% | 5 | 5 |
| New Delhi | 14 | 313 | 12 | 13 | 4,2% | 3 | 85,7% | 1 | 2 |
| Jakarta | 73 | 898 | 10 | 17 | 1,9% | 4 | 13,7% | 3 | 3,5 |
| Tehran | 28 | 104 | 4 | 4 | 3,8% | 3 | 14,3% | 3 | 3 |

| Genoa | 41 | 771 | 5 | 13 | 1,7% | 4 | 12,2% | 3 | 3,5 |
|-----------------|-----|-----|----|----|-------|---|-------|---|-----|
| Livorno | 97 | 765 | 2 | 26 | 3,4% | 3 | 2,1% | 5 | 4 |
| Osaka | 118 | 250 | 12 | 22 | 8,8% | 2 | 10,2% | 3 | 2,5 |
| Tokyo | 37 | 462 | 10 | 22 | 4,8% | 3 | 27,0% | 1 | 2 |
| Malaysia | 60 | 315 | 13 | 26 | 8,3% | 2 | 21,7% | 1 | 1,5 |
| Monterrey | 18 | 118 | 15 | 25 | 21,2% | 1 | 83,3% | 1 | 1 |
| Mexico City | 117 | 946 | 2 | 15 | 1,6% | 4 | 1,7% | 5 | 4,5 |
| Karachi | 92 | 106 | 11 | 21 | 19,8% | 1 | 12,0% | 3 | 2 |
| Panama | 77 | 193 | 3 | 11 | 5,7% | 2 | 3,9% | 5 | 3,5 |
| Perú | 42 | 860 | 3 | 8 | 0,9% | 5 | 7,1% | 4 | 4,5 |
| Portugal | 18 | 777 | 6 | 18 | 2,3% | 4 | 33,3% | 1 | 2,5 |
| Busan | 106 | 536 | 14 | 28 | 5,2% | 2 | 13,2% | 3 | 2,5 |
| Seoul | 51 | 885 | 5 | 8 | 0,9% | 5 | 9,8% | 4 | 4,5 |
| Madrid | 72 | 378 | 0 | 3 | 0,8% | 5 | 0,0% | 5 | 5 |
| Vigo | 106 | 835 | 9 | 25 | 3,0% | 3 | 8,5% | 4 | 3,5 |
| Barcelona | 31 | 827 | 12 | 23 | 2,8% | 4 | 38,7% | 1 | 2,5 |
| Bangkok | 73 | 456 | 12 | 17 | 3,7% | 3 | 16,4% | 2 | 2,5 |
| Dubai | 119 | 924 | 2 | 9 | 1,0% | 5 | 1,7% | 5 | 5 |
| Manchester | 73 | 842 | 6 | 7 | 0,8% | 5 | 8,2% | 4 | 4,5 |
| Jacksonville | 68 | 829 | 0 | 26 | 3,1% | 3 | 0,0% | 5 | 4 |
| Ho Chi Min City | 41 | 560 | 9 | 22 | 3,9% | 3 | 22,0% | 1 | 2 |

Source: Own elaboration