

PONTIFICIA UNIVERSIDAD CATÓLICA DEL PERÚ

ESCUELA DE POSGRADO



Consulting Report – Tecport Latin America

THESIS TO OBTAIN THE DEGREE OF MASTER IN BUSINESS

ADMINISTRATION

GIVEN BY

PONTIFICIA UNIVERSIDAD CATÓLICA DEL PERÚ

PREPARED BY:

Peláez Díaz, Lucy Alejandra

Advisor: Sandro Sánchez Paredes

Surco, October 2016

Acknowledgments

I would like to express my deepest gratitude to my team and friends Wenshu Wang, Adam Weng, Oluwatosin Komolafe and Keenan Liss for being a great team in the consulting process. I appreciate each one of your ideas and initiatives to enrich this project. Special thanks to University of Victoria, Maastricht University and Centrum Graduate Business School for all the lessons learnt, which will be of great value in my professional career. In addition, this thesis would not have been possible without the advice and support of professors Sandro Sánchez and Waldemar Alegría, and Alejandro Sarria for his availability for walking together throughout this process.



To my parents Lucy Díaz and Guillermo Peláez, for their countless love, care and support.

Because they first taught me the importance of education.

To my greatest friend Juan Carlos Solano, for always encouraging me to become a better person day after day.

Abstract

Tecport Latin America is a regional distributor of port machinery with current presence in Peru and Brazil. Tecport is a young group of companies attempting to gain market share in a mature industry with price war. Internally, the group has limited human resources placed in different countries with cultural and time zones differences. Apart from that, there is a high vulnerability because its business depends on an exclusive agreement with one Italian producer of machinery. The organization is opening a new subsidiary in Chile, which is starting its operations very soon. When doing so, a problem of knowledge transfer and management between offices became apparent. The solution to this problem would be to determine a way in which knowledge could be transferred in an effective way that would make business processes more productive and sustainable in time.

The techniques applied for the problem solving are design thinking, customer-based strategy, and the long-term sales strategy. To support the decision of the most effective solution to propose, a matrix was developed measuring impacts in quality, cost and time, and associated risks. The proposed solution is to establish a Business Process Management program, which aims to connect Supply Chain and Client Relationship Management, through the optimization of processes. It allows Tecport LA to achieve strategic business intelligence in the long term. In the short term, managers are able to better control and oversee the entire organization. The implementation plan will involve the key employees in the organization since the design stage to guarantee their commitment based on own responsibility. These activities are intended to not only prepare the company to use the proposed solution, but also to analyze key performance indicators, expected to evaluate the efficiency of the employees using this tool.

Resumen Ejecutivo

Tecport América Latina es un distribuidor regional de maquinaria portuaria con presencia actual en Perú y Brasil. Tecport es un grupo joven de empresas, que intenta ganar cuota de mercado en una industria madura con guerra de precios. Internamente, el grupo cuenta con recursos humanos limitados ubicados en diferentes países, con diferencia culturales y de zona horaria. Además, existe una alta vulnerabilidad debido a que el negocio depende de un acuerdo exclusivo con un productor italiano de maquinaria. La organización está aperturando una nueva sede en Chile, que está comenzando sus operaciones muy pronto. Al hacerlo, un problema de la transferencia y gestión de conocimientos entre oficinas se hizo evidente. La solución a este problema sería determinar la forma en que el conocimiento puede ser transferido eficientemente; de tal manera que los procesos del negocio sean más productivos y sostenibles en el tiempo.

Las técnicas aplicadas para la resolución de problemas son *design thinking*, estrategia basada en el cliente, y estrategia de ventas a largo plazo. Para decidir la mejor solución, se elaboró una matriz con mediciones de impactos en la calidad, el costo y el tiempo, y los riesgos asociados. La solución propuesta es establecer un programa de gestión de procesos empresariales, que tiene como objetivo conectar la cadena de suministro y la gestión con el cliente; a través de la optimización de los procesos. Esto le permite a Tecport LA alcanzar inteligencia empresarial estratégica en el largo plazo. En el corto plazo, los administradores son capaces de supervisar y controlar toda la organización. El plan de implementación involucrará a los empleados clave en la organización desde la etapa de diseño, para garantizar su compromiso basado en responsabilidad propia. Estas actividades tienen por objeto no sólo preparar a la empresa para utilizar la solución propuesta, sino también para analizar los indicadores clave de rendimiento, que evaluarán la eficiencia de los empleados que utilizan esta herramienta.

Table of Contents

List of Tables	viii
List of Figures.....	ix
Chapter I: General Situation of the Organization.....	1
1.1 The Organization	1
1.1.1 History and milestones.....	1
1.1.2 Mission.....	3
1.1.3 Vision.....	3
1.1.4 Short and long-term objectives	3
1.2 The Industry.....	4
1.2.1 Competitors.....	4
1.2.2 Suppliers.....	6
1.2.3 New entrants.....	7
1.2.4 Substitutes	7
1.2.5 Clients	7
1.2.6 Industry analysis.....	8
1.3 External Analysis.....	9
1.3.1 Political factors.....	10
1.3.2 Economic factors.....	11
1.3.3 Social factors.....	14
1.3.4 Technological factors	15
1.3.5 Environmental factors	17
1.4 Internal Analysis	19
1.4.1 Administration and management (A).....	19
1.4.2 Marketing and sales (M)	19

1.4.3 Operations and logistics (O).....	21
1.4.4 Finance and accounting (F).....	21
1.4.5 Human resources (H)	22
1.4.6 Information systems and communication (I)	24
1.4.7 Technology (T).....	25
1.5 Conclusions.....	25
Chapter II: Problem Analysis.....	28
2.1 Tecport LA's Perception of the Main Problem.....	28
2.2 Other Identified Problems.....	28
2.2.1 Dependence on CVS Ferrari	28
2.2.2 Poor timing for market entry.....	29
2.2.3 No differentiation in products.....	30
2.2.4 Small team.....	30
2.3 Discussion of Opportunities for the Consulting Project.....	31
2.4 Main Problem.....	32
2.4.1 Definition of the main problem.....	33
2.4.2 Existence of the main problem.....	33
2.4.3 Location of the main problem.....	33
2.4.4 Ownership of the main problem.....	34
2.4.5 Magnitude of the main problem.....	34
2.4.6 Time perspective of the main problem.....	35
Chapter III: Literature Review	36
3.1 Literature Mapping	36
3.2 Literature Review.....	39
3.2.1 Knowledge management.....	39

3.2.2 Organizational knowledge	41
3.2.3 Communication and knowledge transfer	43
3.2.4 Dimensions of KM.....	45
3.2.5 KM Structure and processes.....	50
3.2.6 KM Implementation system.....	53
3.3 Conclusions.....	58
Chapter IV: Analysis	60
4.1 Comparative Analysis of Peruvian and Chilean Market in the Port Industry.....	60
4.1.1 Analysis of the Peruvian market	60
4.1.2 Analysis of the Chilean market	62
4.2 Cultural Analysis Between Peru, Chile, and Brazil.....	64
4.3 Analysis of the Expansion to Chile.....	66
4.3.1 Structure	66
4.3.2 Timing.....	67
4.3.3 Strategies	67
4.4 Analysis of Human Capital.....	67
4.4.1 Organizational structure.....	67
4.4.2 Cross-cultural functional teams and knowledge transfer.....	69
4.5 Analysis of Corporate Culture	70
4.6 Analysis of Previous Attempts.....	72
4.6.1 ERP system	72
4.6.2 Blog-forum.....	73
4.7 Conclusions.....	73
Chapter V: Root-Cause Analysis of the Problem	76
5.1 Identified causes.....	76

5.2 Root-Causes Analysis of the Problem	77
5.2.1 Reduced amount of human capital	77
5.2.2 Lack of information systems	78
5.2.3 Concentration of knowledge in few people	79
5.2.4 Timing of opening the new office in Chile	80
5.3 Justification for Root-Cause Analysis	81
5.3.1 Reduced amount of human capital	81
5.3.2 Lack of information systems	84
5.3.3 Concentration of knowledge in few people	85
5.3.4 Timing of opening the new office in Chile	86
5.4 Conclusions	86
Chapter VI: Assessed Solution Alternatives	88
6.1 Individual Analysis of Alternatives	88
6.1.1 Direct corporate knowledge transfer moving human capital	88
6.1.2 Develop a manual of corporate knowledge	89
6.1.3 Compile all technical information in the cloud	90
6.1.4 Construct a client service staff (CSS) network	91
6.1.5 Develop a virtual platform to interact with clients	92
6.1.6 Mapping of processes of the three key operational positions and define KPIs	96
6.1.7 Weekly Skype meetings among different branches	97
6.1.8 Trimestral evaluation of the performance of each employee	98
6.2 Assessment of Alternatives	100
6.3 Conclusions	101
Chapter VII: Proposed Solution	104
7.1 Justification for the Problem Solving	104

7.2 Mapping of the BPM System.....	106
7.2.1 Value Stream Mapping (VSM).....	106
7.2.2 Customer Development and Customer Relationships.....	108
7.2.3 Inquiries and Quotations	109
7.2.4 Negotiation.....	114
7.2.5 Deals and Delivery.....	114
7.2.6 Management of Suppliers	115
7.3 Key Performance Indicators	116
7.3.1 Development of KPI's.....	117
7.4 Conclusions.....	118
Chapter VIII: Implementation Plan and Key Success Factors	121
8.1 Implementation plan	121
8.1.1 Implementation activities.....	121
8.1.2 Timing.....	124
8.1.3 Cost of implementation	124
8.2 Key Success Factors	125
8.2.1 KSF for the Consulting Project.....	127
8.2.1 KSF for the Implementation Process	128
8.3 Conclusions.....	133
Chapter IX: Expected Outcomes.....	135
9.1 Medium and Long-term Outcomes.....	135
9.1.1 Distributed knowledge	135
9.1.2 Cost reduction	136
9.1.3 E-commerce platforms	137
9.1.4 Improved supply chain management	138

9.1.5 Accurate demand forecasting.....	139
9.2 Immediate expected outcomes.....	139
9.3 Conclusions.....	141
Chapter X: Conclusions and Recommendations	142
10.1 Conclusions.....	142
10.2 Recommendations.....	146
References.....	150
Appendix A: Tecport LA's Financial Statements.....	156



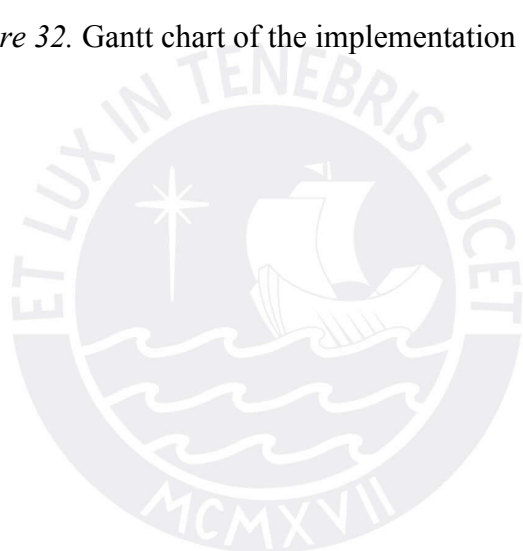
List of Tables

Table 1.	<i>Tecport LA's Opportunities and Threats</i>	18
Table 2.	<i>Tecport LA's Strengths and Weaknesses</i>	26
Table 3.	<i>List of Individual Measures of KM</i>	52
Table 4.	<i>Key Success Factors for KM Implementation</i>	58
Table 5.	<i>List of Identified Causes for the Main Problem</i>	76
Table 6.	<i>Assessment of Possible Solutions</i>	102
Table 7.	<i>Process of Customer Development and Relationship Maintenance</i>	111
Table 8.	<i>List of KPI's, Units and Optimal Limits</i>	119
Table 9.	<i>Estimation of Costs of Implementation</i>	125
Table 10.	<i>Enablers and Risks for the Consulting Project</i>	128
Table 11.	<i>Enablers and Risks for the Implementation Plan's Success</i>	133
Table 12.	<i>Immediate Expected Outcomes for BPM and Indicators</i>	140
Table A1.	<i>Tecport LA's Income Statement 2013, 2014, 2015 in PEN</i>	155
Table A2.	<i>Tecport LA's Balance Sheet 2013, 2014, 2015 in PEN</i>	156

List of Figures

<i>Figure 1.</i> Machinery of Tecport's core business.	2
<i>Figure 2.</i> Life cycle of the port industry.	8
<i>Figure 3.</i> Porter's five forces analysis of the Latin American industry of container handling equipment.	9
<i>Figure 4.</i> Literature mapping: KM framework.	37
<i>Figure 5.</i> Literature mapping and authors.	38
<i>Figure 6.</i> KM success model.	41
<i>Figure 7.</i> Knowledge transfer classification framework.	44
<i>Figure 8.</i> KM building blocks at Hewlett-Packard.	45
<i>Figure 9.</i> National and ethnic cultural values, and knowledge sharing barriers in organizations.	49
<i>Figure 10.</i> Decision making based on the performance-values matrix	53
<i>Figure 11.</i> KM project components.	57
<i>Figure 12.</i> Hofstede analysis Peru-Brazil-Chile.	66
<i>Figure 13.</i> Tecport's current organizational structure.	68
<i>Figure 14.</i> Tecport' organizational structure expectation.	69
<i>Figure 15.</i> Cross-cultural functional teams.	70
<i>Figure 16.</i> Fishbone diagram of the lack of efficient corporate knowledge transfer across Tecport Latin America Group	77
<i>Figure 17.</i> The performance-values matrix	100
<i>Figure 18.</i> Pyramid of management development in organizations.	105
<i>Figure 19.</i> Inter-functional coordination between logistics functions.	105
<i>Figure 20.</i> Value stream of sales process.	107
<i>Figure 21.</i> Value stream of rental process.	108

<i>Figure 22.</i> Prototype of customer information database	110
<i>Figure 23.</i> Map of geo-localization and segmentation.....	111
<i>Figure 24.</i> Quotation process.....	112
<i>Figure 25.</i> Prototype of process of inquiry and quotation.....	113
<i>Figure 26.</i> Negotiation indicators part 1.....	114
<i>Figure 27.</i> Negotiation indicators part 2.....	114
<i>Figure 28.</i> Process of deal-making.....	115
<i>Figure 29.</i> Process of delivery.....	115
<i>Figure 30.</i> Procurement, quality control, and cost reduction in management of suppliers ...	116
<i>Figure 31.</i> First prototype of the control panel with KPI's for decision making.....	120
<i>Figure 32.</i> Gantt chart of the implementation plan.....	126



Chapter I: General Situation of the Organization

1.1 The Organization

Tecport Latin America (onwards “Tecport LA”) is a group of companies which operates in Latin America as an exclusive regional distributor for CVS Ferrari’s container handling equipment. Tecport deals with reach stackers, forklift trucks, empty container handlers and straddle carriers (see Figure 1), and spare parts for port machinery. The group is composed now by its headquarters based in Lima and two companies, one in Peru and one in Brazil. Its first company started in Peru under the name of Equiports (Equipos Portuarios S.A.C.) in 2007, with its first office in Lima and a store in Callao. Its second branch was opened in Brazil in 2013, under the name Tecport Brazil, which operates mainly the central Atlantic coast of the country. Nowadays the expansion plan points to open a third subsidiary in Valparaiso in the second semester of 2016, as Tecport Chile. Apart from that, Tecport LA oversees the sales of machinery, after sale service and spare parts supply for Mexico, Central America and South America. This implies the control of a number of distributors in whole Latin America, due to an exclusive agreement signed with CVS Ferrari. Tecport’s sales have grown since its start up and the Group keeps expanding in the region due to potential opportunities in the port industry.

1.1.1 History and milestones

Equiports company started its operations at the end of 2007, meaning, nine years in the Peruvian port machinery market. Six year after, based on the knowledge acquired in Equiports, Tecport LA Group started operations in November 2013 in Peru, as the exclusive whole distributor for the America region for CVS Fantuzzi products.

Brazil appeared to be a very attractive market for the port industry, therefore, Tecport decided to expand into this big country. Comparing with other two CVS dealers which had bad reputation because of their dishonesty, Tecport offered a better performance on service

and sales. From 2013, Tecport made a deal with three dealers: one in Northern Brazil, one in the Central Brazil, and one in the Southern Brazil. There is a lack of knowledge among the dealers, which results in an unsatisfied performance, but Tecport is still working with them. Later in the year, Tecport set an office in Brazil which covers the central part of operation, whilst they kept contracts with one sales agent for the south and one for the north. Tecport Brazil is a Brazilian Company owned by Peru, which contributed to over 50% of their whole outcomes. There are around 150 CVS Ferrari machines in Brazil currently, of which nine machines were sold by Tecport in Brazil last year and an expectation for the same number of sales this year.

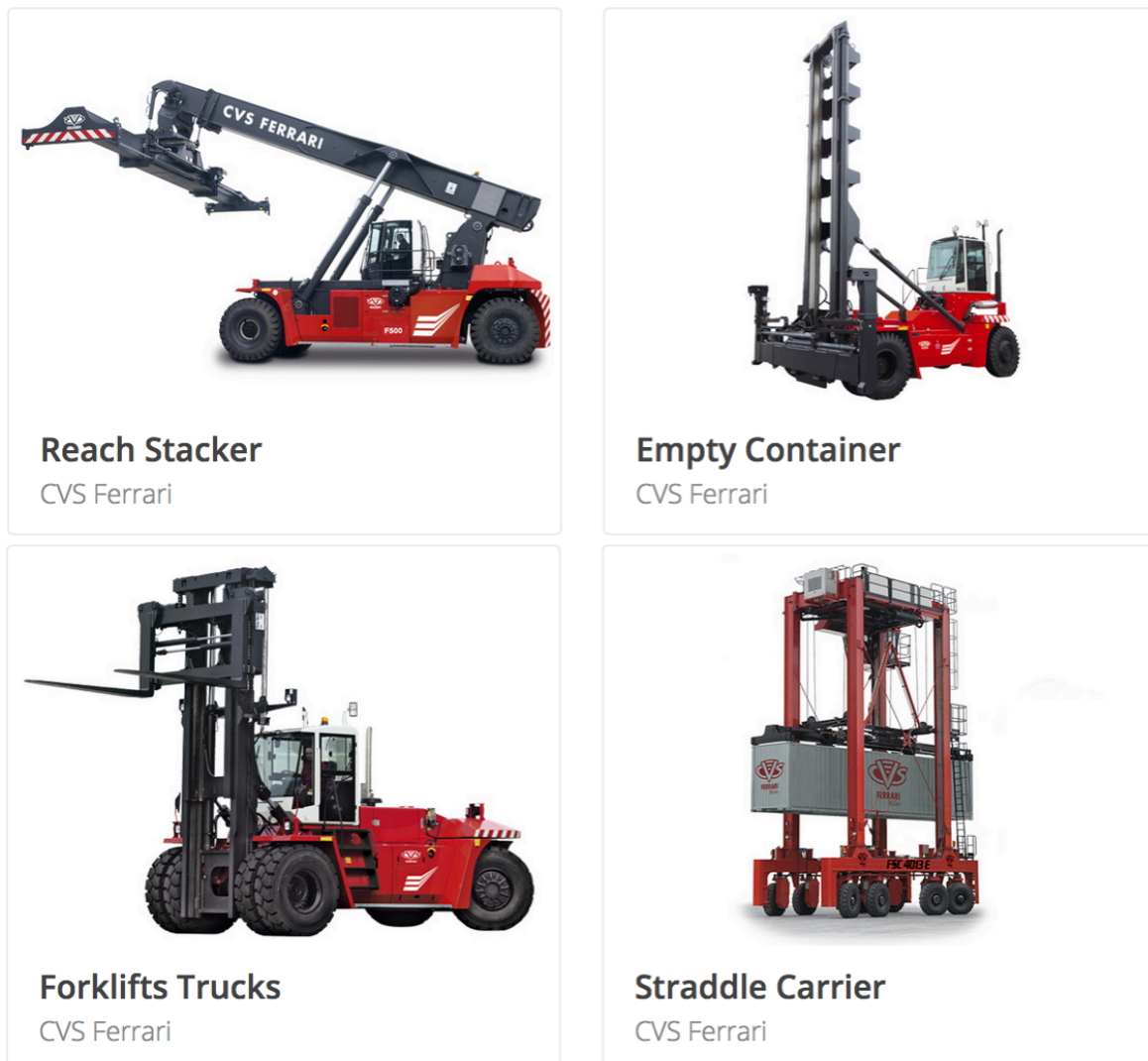


Figure 1. Machinery of Tecport's core business. Adapted from Tecport Latin America, 2016 (<http://www.tecportla.com>).

1.1.2 Mission

Tecport's mission is to provide clients with innovative equipment, service and distribution of port facilities in Latin America through an exclusive strategic alliance with reputed manufacturers, and to provide global quality (Tecport LA, 2016a). Also, they strive to generate high returns for its investors while the preservation of the environment is promoted (Carrasco et al., 2016).

1.1.3 Vision

Tecport began this project with CVS Ferrari and Italgru with the responsibility of managing the development of these brands with a strategic plan for the next five years. Their vision is to lead the market for port equipment and container ships rental service in the region by 2019 (Tecport LA, 2016a). From interviewing Alejandro Sarria, Tecport's General Manager, Tecport's vision in the next 10 years is to grow its presence in Latin America and capture the biggest share in the Brazilian, Chilean and Peruvian market. Furthermore, the company plans to diversify the business by manufacturing and trading refurbished machines. However, when two employees were interviewed, there seems to be a lack of knowledge about the vision of the organization.

1.1.4 Short and long-term objectives

In the view of a market with an over-production capacity worldwide combined with a local concentrated market, there are very few options and a low level of awareness of any other manufacturer of port equipment among the main brands currently present in Peru. Having waited and prepared for a year, Tecport's management took the decision of carrying out their expansion plan to Chile. Why was Chile chosen? – (a) The Chilean market is dominated primarily by one company, about 45% of the market. (b) Tecport market there is not a developed as in Peru, but there is a good portion of the pie to be claimed in Chile. (c) The rental business in Chile is developing; normally, companies own equipment but do not

have good service, like maintenance, there is potential for the incentive of renting equipment.

(d) The sales manager of the group already has a potential candidate to manage in Chile. He has sales and operation experiences in a similar company, San Francisco, which provided him with a great deal of information and credibility.

Tecport's strategy of entering Chile market is to invest and set up an office first with one or two machines ready to rent, to differentiate through service-orientation, to integrate recourses, and then to gradually develop into the leading company of the port equipment rental industry. Since they are going to start operations in the Chile office with only an Operations Manager, an administrative manager, and Mr. Alejandro Sarria himself as General manager, they are willing to send people there and back to give the service and to transfer the knowledge.

As a long term objective, the group is thinking of equipment renewal and repowering of services. This refers to buying second hand machines, potentiate them and resell them to new customers. This represents a market niche nowadays in Latin America (Carrasco et al., 2016).

1.2 The Industry

Tecport belongs to the port industry, which has a long history in Latin America. In order to analyze the attractiveness of the industry, it will be used the framework of Porter's five forces. This tool will reveal the micro environment that affects the corporation to serve its clients and make profits, in other words, the level of competition within the industry and the overall profitability.

1.2.1 Competitors

In terms of competitors to CVS Ferrari and Tecport, they include: (a) Kalmar represented by Triton Trading and (b) Terex represented by Herrera Diesel, Linde Group, Kone, and more recent entrants into the market Hyster, Sany, and Otto. The biggest threats to

Tecport are Kalmar and Terex, both who have been in the market before Tecport. Rivalry among competitors is high, due to the few differentiation of the goods. Prices must compete very tight one from the other to close a contract. Tecport has the constant challenge of being one step ahead in its service, as a competitive advantage. The following is an analysis on Tecport's direct competitors.

Kalmar. It is a Finnish company operating in over 30 countries and is regarded by Tecport the top manufacturer of heavy *machinery* in the industry (Kalmar, 2016). Kalmar poses the biggest threat to CVS Ferrari. The exclusive dealer of Kalmar is Triton who have been in the market for over 20 years over 15 years in Peru. Despite the high perceived quality they possess, since the movement of their factory from Finland and Sweden to Poland, their quality has diminished. The advantage Kalmar possesses is the brand recognition it has developed from its long time in the industry.

Terex. The second largest competitor CVS Ferrari and Tecport face in Latin America is Terex. After they bought the assets of both Fantuzzi and buying out the French manufacturer PPM, they now have the largest manufacturing in heavy machinery. Despite their position gained from purchasing previously large players in the market, the machines produced are old fashioned and lack technical improvements making them lower quality and cheaper.

Other brands. Kone cranes has been in the business of manufacturing lifting machine for over 80 years and currently operates in over 50 countries. Lastly, other more recent entrants Sany and Hyster are competing for market share. These Chinese and American brands have increased the options for clients creating a commodity market and in turn, giving buyers more power.

1.2.2 Suppliers

As for Tecport's suppliers, there are two groups: the heavy machinery manufacturers and the spare parts manufacturers. The organization is responsible for the distribution of CVS Ferrari products and Italgru container handling equipment. These machinery is considered as a commodity, due to its lack of differentiation, thus there is small room for negotiation of prices. Manufacture and importing price remain basically the same, so the power of negotiation of suppliers is high compared to Tecport.

CVS Ferrari. This company is a subsidiary of Manitex International and began its operations in 1973 in Northern Italy. The company now works out of Milan and manufactures a wide range of container handling equipment. CVS Ferrari manufactures: (a) steel structures, (b) spreaders, (c) hydraulic cylinders, (d) cabins, (e) electrical/electronic hardware, (f) software for equipment management and control, and (g) heavy machinery and light machinery of main components. In Latin America, however, Tecport only distributes a few products of Tecport's lines, primarily reach stackers and forklifts. Tecport is responsible for the CVS Ferrari's Latin American market development. This partnership represents high engagement and responsibility from both sides, in order to achieve their individual growth objectives.

Italgru. Parent company Bonfanti, this company is a manufacturer of port and offshore cranes which began operations in 1995. The product they have specialized in and offer in the market is in mobile harbor cranes which can be installed on offshore oil or hydrocarbon drilling rigs, cargo vessels. Despite Italgru's reputation in Europe, it still does not have wide recognition in the Latin American market. For Tecport, Italgru products only represent a miniscule fraction of their total sales as in Northern Peru in the petroleum industry, one machine is rented out every few years.

1.2.3 New entrants

As there is an overcapacity in the port container handling machinery industry, as well as the demand for these machines is decreasing, the threat of new entrants is relatively low. In this red ocean market, Tecport may not be facing competition from new entrants but maintaining an advantageous position is the challenge they will face.

1.2.4 Substitutes

Presently, there are no substitutes for the port machinery that Tecport trades due to its high cost and its standardized activities. Among brands manufacturing these machines, the products are very similar. However, in the near future, technology may permit some substitutes to appear and replace aspects of this machinery.

1.2.5 Clients

Tecport has three groups of clients: ports, depots in and outside ports, and companies which include containers in their supply chain. Due that many brands of machinery compete in the same Latin American market, the power of the customers is high, leaving few chance for increasing the dealing margins, which can fall up to 1% in sometimes. In these scenarios, the interest lies on the aftersales service, which has margins up to 30%.

As for current clients, Tecport manages 10 in total spanning all over Latin America: two clients in Mexico, two in Ecuador, two in Chile, one in Cuba, one in Santo Domingo, one dealer and three customers in Peru, and one dealer and five customers in Brazil. To rank the sales of Tecport in terms of countries, Brazil accounts for the majority at 50% of sales followed by Chile and Peru. In terms of client segments, Tecport categorizes its client base in two divisions: ports and depots. Ports entail customers who require the use of both reach stackers and forklifts as well as cranes in order to move containers within ports while depot clients require the machinery only for moving containers within a container yard.

1.2.6 Industry analysis

Based on the industry's characteristics of standardized products, a price war between competitors and the decreasing margins, and lack of substitutes, it classifies to be in the maturity stage of its life cycle (see Figure 1). This mature state implies that there is poor innovation and that competitors are already positioned in the market, and with customers having clear preferences about the products.

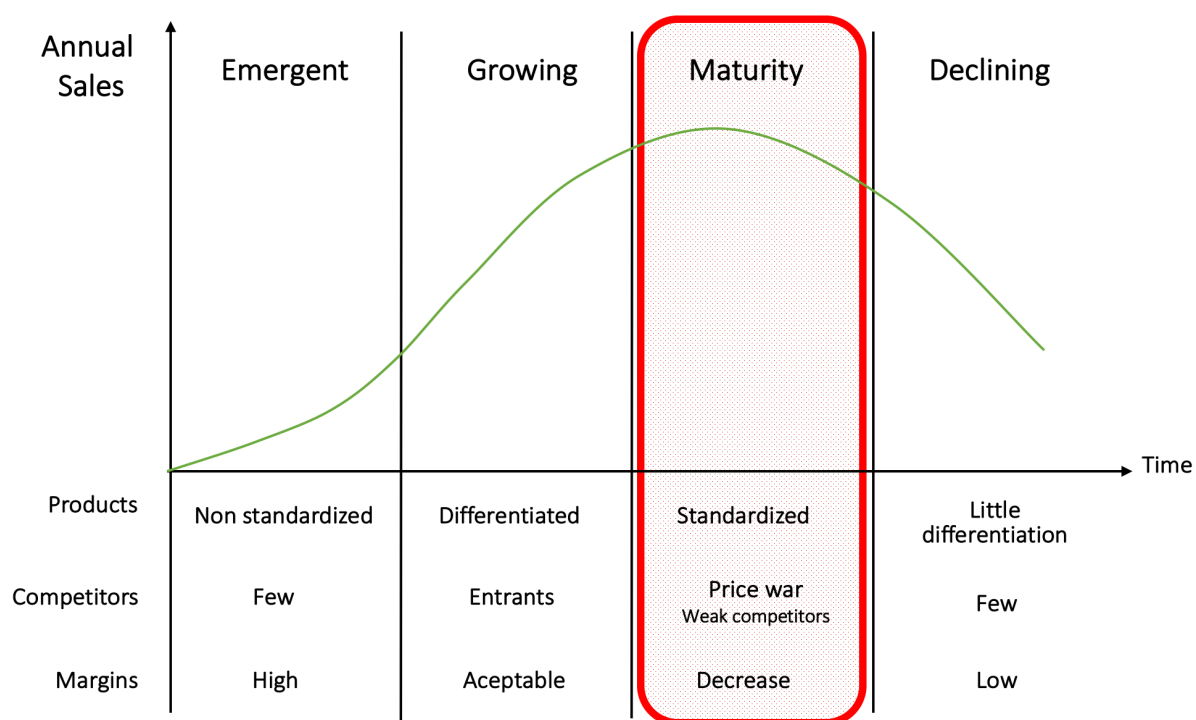


Figure 2. Life cycle of the port industry. Adapted from *Planeamiento estratégico razonado: aspectos conceptuales y aplicados* (p. 26), by F. A. D'Alessio, 2014, Lima, Peru: Pearson.

In Figure 3, it has been schematized the Porter's five forces, in order to sum up the level of threat of new entrants and substitutes, bargaining power of suppliers and customers, and rivalry with competitors. It is important to pay special attention to competitors and to suppliers, in that order. Firstly, it is evident that Tecport LA must maintain the competitive advantage of its services, as key success factor, in order to remain competitive in the market. The second important outcome from this analysis is the instability of some suppliers. Tecport should consider finding a new supplier or an strategic alliance, as a backup plan as

trends show that many heavy machinery producers go bankrupt due to inability to retain sustainable revenue to stay afloat.

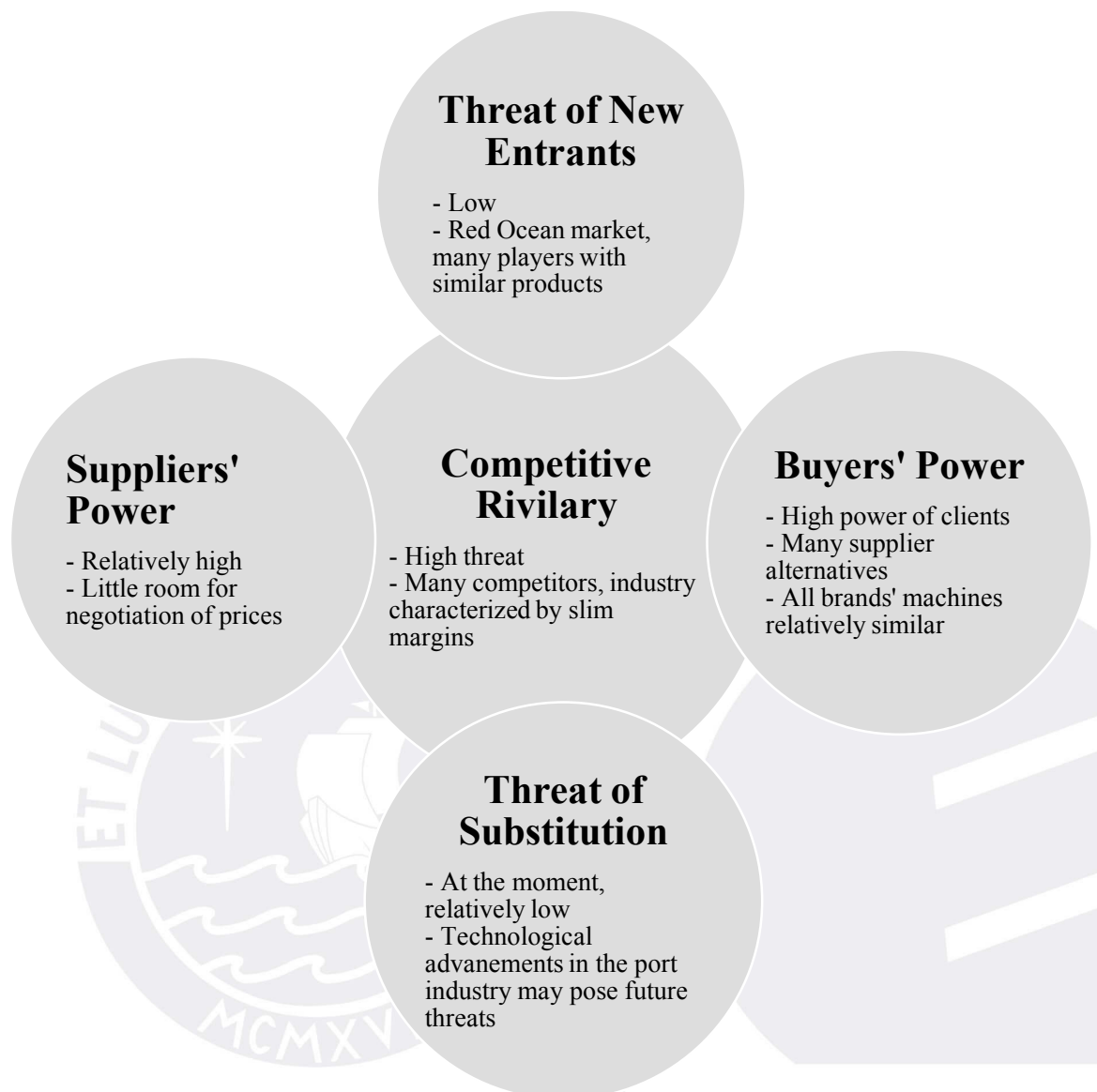


Figure 3. Porter's five forces analysis of the Latin American industry of container handling equipment. Adapted from “How Competitive Forces Shape Strategy”, by M. E. Porter, 1979, *Harvard Business Review*, 57 (2), pp. 137-145.

1.3 External Analysis

Latin America is growing into a region of greater political and social stability that is capturing superior attention in a global environment where financial and economic crisis is prevailing in developed societies. In spite of the numerous challenges in the region, Latin America continues to succeed in its endeavors to achieve advancement while centralizing and

boosting social accomplishments. In order for Tecport LA to dominate in this region, it must fully understand the state of the markets it currently has presence in as well as the potential key players for expansion. Section one of this report will examine the key players in Latin America with significant investment in the Port industry (Brazil, Peru, Chile and Mexico) through a PESTE analysis (political, economic, social, technological and environmental factors).

1.3.1 Political factors

The powerful new alliances involving Latin American countries -such as the BRICS, the Pacific Alliance, and Mercosur- are enablers for a near future regional development (Atlantic Council, 2015). This integration is more than likely to bring extensive industry investment into the port industry that Tecport can indirectly tap into.

With a population of 127 million, Mexico is seen as a major contender for attractive markets for Tecport. Mexico's federal government, which is currently in office, is the Institutional Revolutionary Party with elected candidate Enrique Peña Nieto. They are in charge of passing and enforcing legislation throughout the country. Regulations, taxes for businesses differs between states and local government carry significant power in influencing business practices (World Bank, 2016). Tecport must be aware of these in its endeavors to enter this market.

Brazil functions under a Federal government with the Worker's party as the current governing body and it operates under the Civil law system. Having over 200.4 million people, Brazil is seen to be a relatively stable political environment, however the ease of doing business is very low due to widespread corruption. Tecport must understand the impact this kind of government has on daily operations (World Bank, 2016).

Chile has the highest democratic stability in terms of Latin American countries. This assures a more protected environment for operations in Valparaiso. Under a centralized

system, the country is governed by the Independent Democratic Union. With over 17 million people, most of which are centralized in Santiago, Chile continues to make tremendous progress within Latin America (World Bank, 2016).

Peru is currently governed by a democratic republic under the Nationalist party, but this will be changing because of the recent election. The Peruvian government continues to seek measures in eradicating corruption and in strengthening the economic systems in order to lead its population of 31 million towards a better future. A healthier economy and more sustainable future for Peru will support Tecport's national operations (World Bank, 2016).

Further, the new regulation by the Safety of Life at Sea convention of the International Maritime Organization, requires containers to be weighed by the person whose name is signed on the bill of lading may well put Tecport on the map in Latin America. The technology required to do weigh these containers if invested upon in the early stages will help Tecport infiltrate the west coast. Other innovative business concepts such as refurbishment, as many governments prohibit the purchase of old machineries due to environmental pollution should be taken into account as a future source of revenue.

1.3.2 Economic factors

According to World Bank, the projected economic growth in Latin America and the Caribbean in 2017 will be 4.1% in respect of the world average of 3.6%. However, looking back in 2016 the case has been the reverse, decline in forecasted growth for five consecutive years with only 1% growth rate, which is mainly caused by the external environment, specifically unfavorable for commodity exporters (World Bank, 2016). Notwithstanding, new business continue to emerge daily increasing the flow of operation, especially in the west coast where active growth and higher influx of trade continues to increase, making it lucrative for Tecport to enter into the key countries for a prosperous future

Contrasted with North America, Europe and Asia, Latin America's port infrastructure is far less developed. Nonetheless, Latin American countries are growing economies with successful future prospects. The economic forecast for Latin America depict a comparatively positive future, although many uncertainties rest on the current trade shock initiated by the commodity super-cycle. Over the years, the region comparative stability, development and active growth has established it as an attractive area for investment with better long-term vision, higher transfer of technology and knowledge from developed nations. The increase in key players -Mexico, Panama, Venezuela, Costa Rica, Colombia, Peru, Chile, Brazil, Uruguay and Argentina- sourcing for greater technology to boost export and set their mark out of Latin America (Breard & Molina, 2016, p. 8) gives Tecport the advantage to establish itself as a qualified expert in heavy equipment and maintenance since they only work with one of the best supplier in Europe.

At one end, Brazil remain entrenched in the recession while a desirable macroeconomic improvement run its course. Brazil is 9th largest GDP in the world at \$2.2 trillion. Known for mining, iron ore, and agriculture, the country has become the leading economy in Latin America. Due to a higher GDP, macroeconomic adjustments and productivity gain, Tecport's Brazilian subsidiary will be likely be profitable (World Bank, 2016). The stagnant growth rate should help Tecport decide on the level of investment it plans to eject into the economy, larger population with constraint economy, low international investment are signs that should be analyzed when taking this market into consideration (Breard & Molina, 2016, p. 8). Nonetheless, it high profile in the oil industry, low entry barrier and low competition will allow Tecport in solidifying its position.

Currently suffering through a major recession, Mexico accounts for \$1.3 trillion of the world's GDP. However, 46.5% live below the poverty line with only 60% of the population employed (lower than the world average) (Reuters, 2015). Being the third largest trading

partner with the United States, oil accounts for the highest foreign direct investment (FDI) while agriculture and trucking make up the second largest industries in the country.

Chile has begun to shift its focus away from the mining industry. With a heavy emphasis on exportation, Chile is working to protect itself from the vulnerability of economic fluctuations in the rest of the world. Listed as the least corrupt the country in Latin America, Chile accounts for USD 258 billion of the world's earnings (Santander Trade, 2015). A booming economy with minimal risk presents excellent opportunities for Tecport's plan to start operation in August 2016 (Boske & Harrison, 2016). It is advisable, however, to have an internal structure in place before launching as Chile has high level already established competition and the demand is predicted to accelerate quickly.

On the other hand, Peru has the lowest inflation rate within Latin America, with its GDP at USD 202 billion. With an average growth rate of 5.9%, due to its numerous natural resources, structural reorganization, relative stability of its currency, and cautious macro policies, Peru is becoming one of the fastest growing industries in Latin America (World Bank, 2016). Tecport may want to consider sustainable marketing strategies in order to tap into these new developments and as well to possibly expand its current 10/15 customer portfolio to successfully gain a significant market share in Peru.

Peru will be an economic outperformer within the Pacific Alliance bloc in the next two years, mainly because of the mining and production and infrastructural activities. Tecport should begin to consider new strategies needed to tap into this new opportunity as its headquarters industry is beginning to expand. The trade exhaustive Chilean economy is being faced with tight disincentive to regain rapid growth path, the government is introducing new and improved measures in strengthening its economy to attract new investors it is vital for Tecport to strategize its timing in order to achieve the most favorable outcome.

Colombia real GDP has been spreading of recent times, actively aided by developing local demand and the progressing leap into non-infrastructural construction activity. The hydrocarbon sector where Tecport is expanding to, continues to suffer the structural reorganization influenced by the world energy sector and the constant excess in the market. Tecport may begin to initiate new ideas of tackling this problem as they plan to open operation in Chile August 2016, this current trend will directly impact the market share, as the country diversifies into other industries with less volatility to the world market to retain a sustainable growth in Latin America (Breard & Molina, 2016, p. 8).

In spite of the budget control on the oil and related public sectors, robust domestic expenditure has become the essential driver of economic activity in Mexico, also better labor market situation and constant reduction in interest rates between United States and Mexico is setting apart the country as a player, Tecport may consider reanalyzing its strategy. Chile may be developing faster than Mexico; however, the Mexican government is investing more heavily into the port industry than Chile.

As the Latin American region develops, so does its policy in protecting new and established businesses. Presently, the majority of countries within this region have similar strength in business protection schemes. However, Chile stands out as it strongly protects minority investors, enforcement of contract and holds superior business registration processes.

1.3.3 Social factors

Mexico is the largest Spanish speaking country. Firms must operate under the people's values, customs, and lifestyle in order to successfully have a foothold in the market. Lower than average OECD educational system may hamper Tecport LA from acquiring knowledgeable employees for maintenance and aftersales specialized services (OECD, 2016).

Brazil is experiencing a gradual increase in upper class (7.7% in 2003) and middle class from (37.6 to 56% in 2013) (Wall Street Journal, 2015). Furthermore, the educational system is still well below the OECD average, which is why Tecport may consider sourcing for specialized employees in other countries where it has a presence.

In Chile, larger multiethnic groups exist. Italians represent the highest population, followed by French, German, British and Asian immigrants. Further, in the recent decade the country's poverty line has dropped significantly as the government continues to support the growing economy and institutions. Overall, Chileans are relatively satisfied with their standard of living, having an average of 6.5/10 within the OECD average. Understanding the cultural norm, its people and language will help Tecport when entering into this market, come end of the year (OECD Better Life, 2016).

In Peru, one of the greatest achievements over the past decade has been its ability to combat poverty and unemployment. The decrease in poverty and unemployment means increased spending, which will support the economy and indirectly favor Tecport.

1.3.4 Technological factors

The development in region can be largely attributed to new technology spreading at a rapid pace, eradicating the delays caused by mediocre robotics. Particularly, Information and Commutation technologies (ICT), made it possible for countries and businesses to leap into new world economy without requiring significant capital investment that would have been mandatory in preceding years. However, it is vital to understand that these progress is not occurring at an even pace around the region, in fact the bigger and comparably more cosmopolitan market such as South America and Mexico have severed away from the cluster. Additionally, it would be in Tecport to consider this information when deciding on expanding in the near future.

Stagnantly low investment is seen in innovation, R&D and technology advancement in Mexico. As Mexico continues to improve its economy, possible growth in the port industry will allow Tecport to reconsider this market as an expansion strategy for the future. On the other side, in Brazil -being one of the major players in port and shipping sector as well as having two of the largest ports in Santos and Salvador- infrastructural and technological advancement are still lacking (Port Finance International, 2015). Tecport LA can position itself in this market and tap into the many ongoing developments and new port regulations. Barriers to entry in this sector can be reduced by consistently emphasizing its superiority in quality (as the machinery used in this sector are standardized with no differentiation), in its European design, ability to provide machinery rent services since this is rare in the country and speed in maintenance services.

Chile has maritime terminals in every region within its geography except for in landlocked Santiago where the international airport is located. San Antonio -its biggest port- holds 16.67 million tons of bulk consignment (Salivaras, 2014, p. 6). Additionally, due to investments in a new container terminal and the merger of the two biggest European shipping organizations, there has been an increase in government expenditure in the operation of the Valparaíso port (European Commission, 2015). This will present opportunities for Tecport clients, thus resulting in an increased demand for port machinery. However, in the event that CVS Ferrari the company that supplies Tecport with these heavy machineries becomes sold, acquired or merges with a different company. Tecport exclusive dealership can become obsolete and its competitive advantage rendered invaluable.

The Peruvian government granted a USD 182 million investment in the construction of a port close to Pisco (Salivaras, 2014, p.6). The idea is to increase mineral export and enhance relationships with Brazil. The extended financing into this sector, should help

Tecport reconsider its operations. New strategies for penetrating this market is advisable in order for Tecport to attain a large proportion of this market.

1.3.5 Environmental factors

Mexico has an average transportation and health system, however, organized crime is still high. When selecting facilities in the country, Tecport must take into consideration the less secure districts within its operational scope.

Brazil has one of the poorest safety measures for its people and is considered one of the least environmentally friendly countries. This directly affects Tecport's relationship building and daily operations due to trust concerns if the government begins to strictly regulate environmental processes hindering the company from meeting day-to-day targets.

Chile, similar to many Latin countries, still functions under poor air and water conditions due to copper sourcing. Natural disaster and smog concerns are also recent concerns Tecport must take into account when choosing the appropriate mode of entry. Additionally, Chile's geographic shape has allowed for the presence of thirty-three ports along its coastline for the import and exports of goods. The presence of this favorable condition can leverage Tecport's presence in the country and why not, the other way around.

Peru, with high power distance, low uncertainty avoidance, and low long-term orientation, has a long way to go. Citizens are beginning to be more aware of environmental issues and speaking out on its affect to livestock and human lives. Tecport must develop new measures in educating its customers on sustainable ways of operation and to gain the trust of the local people.

Using the overall outlook and PESTE analysis, a table of opportunities and threats for Tecport LA has been created to give a summary of what Tecport should take into consideration, to take advantage of or for mitigation (see Table 1).

Table 1

Tecport LA's Opportunities and Threats

Opportunities
1 Chile's geographic shape has allowed the presence of many important ports along its shore for the imports and exports of goods.
2 Chile is one of the main producers of copper in the world, and China is interested still in importing as much as possible.
3 Many infrastructure projects coming in Peru: construction of new ports, and the big Chinese project joining the Atlantic and Pacific Oceans.
4 New alliances between countries: BRICS, the Pacific Alliance, Mercosur, etc.
5 The port industry in Brazil (9th GPD in the world and 50% of the LA market) and Mexico have the potential for growing, due to the prosperous future of exporting.
6 There is growing trend for renting port machinery instead of purchasing it, and currently there is no availability in the market for rent.
7 The 2018 port law, which indicates that all containers must be weighted before being shipped. Tecport may try to invest in technology (a software or other solution).
8 There is space for developing a market niche: refurbishing port machines and reselling them.
9 USD/PEN exchange rate decrease.
10 New environmental restriction may lead to prohibit the use of some old machinery, giving space for renewing fleets.
Threats
1 CVS Ferrari to become acquired, bought out, or get into a joint venture.
2 History of similar companies to CVS Ferrari going bankrupt in the past.
3 Port machinery does not have relevant differentiating advantages; they are all quite standard regardless their brand.
4 There is high competition in the port industry. The competitors are big companies.
5 The Latin American market is saturated when Tecport has a small market share (10-15 clients in Peru).
6 The port machinery does not have relevant differentiating advantages. They are all quite standard regardless their brand.
7 The Governments in Latin America are not stable. Every four or five years there is a fear for uncertainty.
8 There are some social problems in some countries, like terrorism and street insecurity.
9 USD/PEN exchange rate increase.
10 There is no much innovation in port machinery.

1.4 Internal Analysis

The internal analysis of Tecport Latin America will be held through the AMOFHIT methodology, which will analyze seven aspects of the organization in an attempt to fully understand its functioning: administration and management (A), marketing and sales (M), operations and logistics (O), finance and accounting (F), human resources (H), information systems and communication (I), and technology (T). This analysis will allow to identify the strengths and weaknesses the organization has.

1.4.1 Administration and management (A)

The Tecport Group is functionally managed by two people: Alejandro and Cesar Sarria. Both brothers have undergraduate studies in the U.S. (Carrasco et al., 2016) and Master's degrees in business from Centrum Business School in Peru. Apart from their educational background, Cesar has worked in the port industry since the 2000s, getting to establish many important contacts and building a network, which have benefited the start up and growing of the Tecport group. One important contact has been Cesar's boss, who has allowed them to establish agreements with important manufacturers of cargo handling equipment: Fantuzzi, Linde and CVS Ferrari currently.

1.4.2 Marketing and sales (M)

Mix of products. Tecport's products are services. These can be classified in four: (a) to deal the sale of CVS Ferrari's port machines, (b) to take care of the maintenance and post-sale service for this equipment; (c) the sale of spare parts; and (d) the renting of container handling equipment. As shown in Figure 1, Tecport manages the following four container handling machines: (a) *reach stackers*, for reaching and stacking empty or full containers up to 45 tons; (b) *empty container handlers*; (c) forklift trucks, with a capacity from 16 to 60 tons; and (d) straddle carriers, which serve as mobile harbors (Tecport LA, 2016a). The advantage of CVS Ferrari's machinery is that it is considered of high-average quality,

especially superior to the Chinese ones. The main feature of these machines is that they are used 24 hours a day. These machines, due to their price, are reduced in number in each port and are indispensable for the operation. Because of this, the guarantee of full availability is the most important factor when choosing one of these machines. This availability is both obtained from the quality of the equipment and its small necessity for maintenance, and from the speed of the maintenance when needed. That being said, the core values of the service are the interaction and treatment with the clients, and the on-time delivery of the products. Therefore, three key players are essential for the total quality: (a) the personnel in direct contact with the clients, providing the technical support; (b) Tecport's operations management and spare parts management, with the best willingness to attend the requirements; and (c) CVS Ferrari, providing the best quality, the least time of delivery of spare parts, and the least time of response for maintenance.

Price. The price is arranged individually in every service. Bargaining is usual in the Latin American culture, so there is gap for negotiation interaction between Tecport and its clients. It depends on the Sales department to achieve the highest deal. On the other side, there is a fix cost arranged with CVS Ferrari, so it is Tecport's responsibility on the prices set. Tecport indicates that its margins are reduced compared to the rest of the market, in order to broaden the number of customers.

Place. Tecport group has two subsidiaries (as on July 2016), each of them under an independent company administration. In Peru, there is Equiports, with one office and one store located in Lima. In Brazil, one office manages the central coast of the country, and two sales agents take care of the north and south coast.

The operations are placed in Latin America, with current presence in Mexico, Brazil, Peru, Chile, Cuba, Dominican Republic, and Ecuador. In the rest of the countries, apart from

Peru and Brazil, Tecport has strategic alliances with some agents. The maintenance services are provided in the clients' places.

Promotion. The services are mainly promoted by word-of-mouth, the webpage, and corporate e-mails. Word-of-mouth is the main mean of promotion, usually in the after sales or maintenance services provided. However, there does not seem to be a defined positioning and a marketing strategy in the group. The only sign identified is one person in the Lima branch for the electronic promotion.

In essence, customers know Tecport for the quality of its services and technicians. Equiports analyzed the Peruvian consumer and came up with five preferences: (a) the quality of the service; (b) the availability of spare parts; (c) the professionalism of technic teams; (d) the international standards homologation; and (e) the labour costs. There has not been identified a further study about the preferences of the port customers in the other Latin American countries.

1.4.3 Operations and logistics (O)

Based on the classification of the businesses according to their operations, Tecport has the B3-repair and S1-logistics types of operations. Based on the frequency and the volume of production, Tecport operations classify as projects, due to the customization of each good and service provided. The Peruvian and Brazilian Tecport companies have started their operation by subcontracting them, but their trend is to gradually leave the outsourcing and to handle the services with own labour force. In Chile, the same trend will be followed.

1.4.4 Finance and accounting (F)

Tecport has three types of revenues: from sales, from rent, and from maintenance service. The renting service is held by Equiports only for now. In Equiports, the sale and rent of machinery accounts for the 55% of the revenues, 30% comes from the sale of spare parts, and 15% from the service of maintenance. The reach stackers account for the 80% of

the sales, being a standard widely used equipment in every small and middle size port and depot. Only in Peru, Tecport has the 20% of the market share in reach stackers.

According to the Table A1: Tecport's Income Statement, Tecport has grown sales from 1.5 million Soles in 2013, to 8.7 million in 2014, to 16.1 million in 2015. This means increases of 500% in the second year and 85% in the third year. In the same years, the net incomes have raised from 17 to 90 to 424 thousand Soles, representing increases of 419% and 370% respectively. Based on the Table A2: Tecport's Balance Sheet, the group has expanded its capital from 80,000 Soles in 2013 to 2,379,322 Soles in 2015. In Equiports, the gross profit for maintenance services is around 30%, for the sale of machinery is 3% in average, and for the rent, 10% (Carrasco et al., 2016, p. 66). From table A1 and A2, the return over equity (ROE) were 18%, 14% and 15% in 2013, 2014 and 2015 respectively.

There is not a finance division in the group. The financial decisions are undertaken by the general management, Alejandro and Cesar Sarria. Tecport's organizational politic is to reinvest the totality of the net profit, thus not to distribute dividends. Due to the good relationship established with Peruvian banks and for paying them on time, there are possibilities for the group to get financing in the short and long term in Peru.

1.4.5 Human resources (H)

The two current operating companies, Equiports and Tecport Brazil (as of July 2016) have similar distribution of functions. The areas are divided as: operations management, spare parts management, accounting management and an administrative office. Equiports has the largest team with 18 employees, between administrative and operating labour.

Legally, Alejandro Sarria is Tecport Latin America's General Manager. However, he is also the Managing Director for the South American Pacific Coast. His brother, Mr. Cesar Sarria, is the Managing Director for the Mexico, Central America and the South American Atlantic Coast. The Tecport's headquarter is composed of one Operations Manager (also

called After sales manager, Franco Miglio), one spare parts manager (Geraldo Rengifo), one accountant and one administrator, in charge of all the country members' activities, except from Brazil, which is acting independently for now.

As said before, Tecport group has differentiated in the Peruvian market by its services and aims to keep this as the core of its business in its further expansion in Latin America. Nowadays, Peru has a big specialization in the use and maintenance of heavy machinery, in terms of hydraulics, electrics, electronics, etc. This knowledge needs to be transferred to the subsidiary in Brazil and its soon new office in Chile. To achieve this, each company of the group recruits the best well-trained technicians specialized in heavy machinery, and tries to give the conditions to keep them for long periods (e.g., best payment in the market and initial training). In the nine years of life, since Equiports was founded, the oldest employees nowadays have seven years in the company (2), and the rest, five years, except from the two newest employees with two years by now.

The future of Tecport and its sustainability depend on its human resources mainly. The administration of Tecport's human resources is held by the Administrator of the Group, since the leading of the recruitment process, to supervising healthy working environments. Alejandro and Cesar are also involved in this endeavor. Each management is responsible for its collaborators. So far, there is not a measure to evaluate the quality of the working environment in the organization.

Equiports has a handbook of the organization and functions. There has not been found evidence of its diffusion among the members of the organization, but its last version accounts from March 11, 2016. Due that each company has few employees and the organization is quite flat, there is only a small room for promotion. This issue could represent a threat for the leakage of talent.

1.4.6 Information systems and communication (I)

Since Equiports expanded to be part of the Tecport group, it became necessary to strengthen the communication and transfer of information and knowledge among subsidiaries. Furthermore, now with the upcoming opening in Chile, a plan of communication is needed in order to spread the culture, values, policies, vision and procedures of the organization.

Equiports has an ERP (Enterprise Resource Planning) system: Microsoft Dynamics, which is fully implement in the office. It compiles the accounting, financial, commercial and logistic information in real time. Besides this, the Peruvian and Brazilian subsidiaries have a telephone network, and each employee is assigned with a cellphone for business purposes.

Equiports and the Tecport Headquarter experienced a loss of massive data from its server a few months ago, as a consequence of a destructive virus. Since then, all the personnel has made the extra effort of saving and compiling the information as it appeared. However, great portion of the information is not classified yet and most probably it will be left as it is, building the new data from then on.

When interviewing the General Manager Alejandro Sarria, he stated that the Operation managers and Spare-parts managers use their own formats to save and handle information, mainly in Excel sheets. Those format can be totally understood by them, but not by their peers. However, this has been the way how activities, sales, and services have been reported. Besides, the consulting team identified, that some information is not saved in the server as files, but just in each one's Outlook. These two indicators give proof that the knowledge in the company is spread in different ways. This was identified as one first need of the corporation.

1.4.7 Technology (T)

Technological aspects are held by the Tecport's operations management mainly. They make sure that the technicians are updated with the changes in technology in the equipment, through eventual training programs. Tecport general management seems interested in investing in this. Regarding the innovation in the goods offered, currently this does not depend on internal decisions in the organization, but in its suppliers. Tecport general management believe that the machinery provided is of the newest technology and that this industry has not evolved much in R&D worldwide, which has provoked that the machines remain the same over the last 20 years in the chassis, with some changes in automation. Regarding the innovation in the service, there is room for improvement, taking advantage of IT and new trends in e-business.

Consolidating the data of Tecport's internal situation, especially based on the AMOFHIT analysis, the Group's strengths and weaknesses identified are shown in Table 2. It can be observed that despite its short life, Tecport has potential mainly based on the expertise of its top management and the service quality, which is its differentiating feature and thus its competitive advantage.

1.5 Conclusions

From the industry analysis, it can be concluded that the port industry is a mature stage, which means that there there are standardize products and poor innovation, competitors are already positioned in the market with a price war between them, decreasing margins and no substitutes, and with customers having clear preferences about the products. However, Tecport LA has a strong advantage in the market due that it has a exclusive right for distributing in Latin America the container-handling machines of the third largest producer in the world.

Table 2

Tecport LA's Strengths and Weaknesses

Strengths
1 The agreement of exclusivity with CVS Ferrari, which allowed this business to exist.
2 Good relationship with CVS Ferrari.
3 Strong relationships with current clients.
4 Tecport LA uses its aftersales service also as a channel to meet new clients.
5 Good quality, well perceived by Latin American clients.
6 Opportunity to order equipment without payment in advance and 90% of the payment before shipment.
7 Each subsidiary has the same business and processes, which allows knowledge sharing.
8 Language among branches is same or similar.
9 Both owners have an MBA degree and have developed researches in the Port industry and Equiports.
10 Tecport has a person full-time dedicated to promotion online.
Weaknesses
1 Exclusive agreement with CVS Ferrari for the sale of their machines in Latin America, which limits Tecport diversification of products.
2 A non-mature IT system that leads to long times of response to the clients, which originates high frequent dependence on suppliers.
3 No spread vision nor strategic plan.
4 Overambitious and unrealistic medium term objectives.
5 Small profit margins in sales of machinery (5%)
6 Lack of reference or benchmarking with the competitors in the industry.
7 Limited human resources.
8 No records of turnover of personnel due to the age of the organization.
9 Most of the knowledge is held by two people, Mr. Alejandro and Cesar Sarria.
10 Tecport's expansion into Chile is starting when the Chinese economy is decelerating and the U.S. and the E.U. are yet overcoming the crisis.

In terms of the Latin American outlook and its influence in the ports operation, there has been an international economic climate that has been long beneficial to the region but is now declining. Undeniably, sluggish progress in China and a sudden rise in the interest rates in the U.S have merged to force down the value of commodities, moved up the dollar globally and reduced the inflow of investment into the region, adversely affecting almost all Latin American economies. Nevertheless, a number of countries have proposed structural reorganization essential for a surge in productivity and competitiveness. It is apparent that the current decelerated growth has made reorganization action more challenging and in some events, even stopped it.

Positive news are that in spite the deceleration, almost all the countries remains strong in their economies mainly due to the reserves, public debt in stocks and general social condition that has been more encouraging than the last past decade. The regions with strong port operation such as Chile, Peru, Brazil, Mexico and Colombia have been experiencing increased investment in capacity and infrastructure, and this is positively indirectly impacting port equipment suppliers. The region's location coupled with the confidence in foreign and government investments into the port sector continues to rise and it is believed that this trend will continue for decades to come. In spite of the numerous challenges Latin America continues to face, it is its endeavor to achieve advancement while centralizing and boosting social accomplishments, which will boost exports and imports in the country and thus strengthen the port industry.

In regards to the internal analysis, Tecport Latin America has a business-to-business (B2B) model. And there is a very tight connection with their clients, in that if more containers are being handled in ports and depots, more machines are needed. But also, it implies a dose of responsibility in Tecport LA to seek for innovation in machineries in a partnership with CVS Ferrari to increase the productivity of the final clients' activities.

Chapter II: Problem Analysis

2.1 Tecport LA's Perception of the Main Problem

The key problem for Tecport, from the client's perspective, revolves around the notion of knowledge transfer across the Group. Tecport is currently focused on international expansion and needs to determine what the appropriate course of action is, in terms of structuring the transfer of knowledge in the new office. After successfully penetrating the Brazil industry (only in terms of sales and not in rentals), the company has decided to enter the Chilean market with a heavy focus on rentals and after-sales services. According to Tecport LA's GM Alejandro Sarria, the most significant challenge with this problem is the time it will take to transfer the knowledge from Tecport's current staff in Peru to the future employees in Chile. Tecport plans to begin operations in Chile as of mid-August 2016, and so time is of the essence. According to Sarria, Tecport LA has already locked down a new OM who is experienced in the industry, who appear to be a key player in the problem-solving.

2.2 Other Identified Problems

After having had two meetings at Tecport headquarters and talking with the OM and the SPM, it was able to identify a number of potential problems faced by the organization that revolve around its vulnerability. Apart from the problem around knowledge transfer, the four main problems are listed below in a decreasing order of significance or impact. The identified problems are different in complexity and areas involved, and some would demand more radical and costly actions than others.

2.2.1 Dependence on CVS Ferrari

First and foremost, it is believed that the organization is currently in a vulnerable position. Tecport's entire business depends on CVS Ferrari. Tecport relies on its relationship with CVS Ferrari and so it is crucial that CVS stay in business and in good relations with Tecport. Prior to having a relationship with CVS Ferrari, Sarria's company had a relationship

with Fantuzzi. The company's operations relied on this relationship, which proved to be a serious issue when Fantuzzi went out of business in 2008. According to Sarria, the relationship with CVS is strong and Tecport isn't too concerned with CVS going out of business or being acquired by a different organization. Although this is the case, the fact that the life of Tecport rests in the hands of CVS is something that should be taken seriously.

2.2.2 Poor timing for market entry

A further reason supporting Tecport's vulnerability is regarding the fact that they wish to enter the Chilean market at a poor time. According to Sarria, the Chilean market is not currently growing. In the initial meeting he explained that by the end of August Tecport will have an office in a market that shows no present opportunities. He explained that there is an opportunity for growth but Tecport will have to wait for the market to develop. It is believed that expansion into Chile may be a wise strategic decision but that it remains risky to invest at the moment. Tecport intends to begin operations in Chile with only two new machines and it is believed this may not be the right move. Moreover, after analyzing Tecport's financial statements, it is evident that the company cannot afford to take the risk of entering the new market. The company's liabilities are quite high, which is testament to the company's vulnerability. If Tecport fails in Chile, its debt might be so paramount that bankruptcy could occur.

Tecport LA is developing an office in a market that does not currently exist. This could be a smart tactical decision but it could also be very detrimental. Upon a first analysis, the consulting team is motivated to advise against the Chile expansion based upon the fact that the company plans to expand into the country before the market properly develops and that it cannot afford to accumulate more debt.

2.2.3 No differentiation in products

Our team believes that Tecport is also in a vulnerable position because of a lack of differentiation. Tecport essentially offers the exact same thing as its competition. Tecport's products, CVS machines, are basically the same as the machines offered by competitors. The machines offered by the competition perform the exact same tasks, are basically the same quality, and cost around the same price. Due to this reality, one question that arises is "why would one client choose to purchase a machine from Tecport when he or she could go anywhere else?" Tecport's answer to this lies in the area of service. Tecport aims to stand out from its competition by providing its customers with a superior service that is currently not available elsewhere.

Our team believes that Tecport's aim to differentiate through services is a great idea but it is also believed that Tecport should differentiate in products as well. Not only will this display diversity to customers, but it will also help to reduce vulnerability.

2.2.4 Small team

The last problem identified, which is by no means the most serious one, is the fact that the Tecport's headquarters employs only four people. The only staff are: the OM, the SPM, the Office Assistant (OA), and the Marketing Coordinator (MC). The MC manages the Tecport's online presence while the OA takes care of all secretarial work and maintains communication between the employees and the OM. The MC plays a less significant role than that of the OA mainly because the OA has a wide range of duties (many of which are vital to the operations of the organization). If and when Tecport grows beyond its current market, it will be necessary for the MC to take on more roles and perhaps build a small marketing team within the company.

The reason why it was identified that the small team as an issue is because Tecport wishes to increase business and expand operations into Chile. Although the current staffing

situation at Tecport is appropriate, considering the size of the company, it is possible that the number of current staff could become a problem in the future. Sudden changes in demand and a rapid increase in sales or further expansion will inevitably lead to an increased demand for human capital as well as the transfer of knowledge. When this happens, Tecport needs to be prepared to hire the right candidates for the job and train them effectively. If the company fails to do so, it might find itself under too much pressure in terms of its operations (delivering products and/or services to clients).

2.3 Discussion of Opportunities for the Consulting Project

To determine which of the five problems exposed before, will be the one addressed in this thesis, the consulting team analyzed the opportunities for this project that are believed could be of value for Tecport LA. The hypothesis chosen will be analyzed and tested in the following chapters to find the best solution possible:

1. Risk analysis: An evaluation of the threats and weaknesses that the company faces and how it can search for further opportunities.
2. Expansion plan: Research international markets and determine which markets are best suitable for penetration or whether Tecport should be looking to expand into other countries at all.
3. Feasibility analysis: Provide an analysis of the diversification of products in order to solve the problem of relying exclusively on CVS Ferrari.
4. Refurbishing machines: Develop a strategy for creating a machine refurbishing plant, which could lead to a significant business expansion and increase in profits and savings.
5. Marketing services: Create a new marketing strategy in terms of the services offered by Tecport in order to differentiate the company amongst competitors.

6. Knowledge management system: Design a whole plan to influence the flow of information, tools, expertise, values, and culture across the whole organization.

There were discussions on the matter of more urgent and important issues to attend to. First of all, it was agreed upon with the client to focus on a specific problem that related to the opening of a new office outside of Peru. In this endeavor, in conjunction with Tecport LA's GM, the organization's four most impactful weaknesses were identified from Table 2, as: (a) a non-mature IT system, (b) lack of spread of the vision and strategic plan, (c) knowledge in the organization is concentrated in two persons, and (d) no records of turnover of personnel due to the age of the organization. Besides, from Chapter 5, the four transcendent root-causes were identified: an insufficient amount of human capital, the lack of information systems, the concentration of knowledge in the owners, and the timing of opening the Chile office. These three main weaknesses contrasted with the four root-causes reveal what the main problem is for Tecport LA, due to its impact and urgency. With presence in three countries, three languages in place, uncertainty in the turnover of human assets, and being used to practice verbal communication to transfer untraceable information, the main problem Tecport LA faces, became apparent.

2.4 Main Problem

After this bodily assessment, the Tecport LA's GM agreed on working on the problem of lack of efficient corporate knowledge transfer. Currently, non-structured information is being shared in verbal and written ways that do not guarantee the sustained growth of Tecport LA's corporate knowledge in the medium and long-run. This problem arises in the whole organization, but there is an urgency for being resolved in the immediate benefit of the new Chilean office. Tecport's most key employees are the Operations Manager (OM), Spare-parts Manager (SPM) and Commercial Manager (CM). If the company's new office in Chile is to succeed, it is imperative that the core competencies of the current OM's, SPM's and

CM's are effectively transferred to the new OM, SPM and CM respectively. The consulting team needs to come up with possible solutions on how to efficiently and effectively train these human resources in terms of Tecport's culture and operations so that the new staff will be well-prepared when operations in Chile begin.

2.4.1 Definition of the main problem

The main problem this thesis attempts to solve is the lack of efficient corporate knowledge transfer among Tecport LA's branches. Currently, there is no knowledge management system designed nor implemented in the Group. This means: information is not structured, corporate culture is highly implicit, language patterns are not clear, channels of communication are not defined, there are no ways of controlling knowledge transfer, and decisions cannot be taken based on information.

2.4.2 Existence of the main problem

There exists a problem if there is a concern for a difference between two situations: one real and one potential or desired. In the case of Tecport, the real situation is the office in Peru where there is already a team of staff in place who are fully trained and familiar with the Tecport culture. The desired situation, on the other hand, is an office in Valparaiso, Chile where there will exist a major difference in regards to knowledge distribution. In this case the existence of a problem correlates to the concern for the difference between the existing knowledge at Tecport Peru and the need for distributed knowledge at Tecport Chile.

2.4.3 Location of the main problem

The location of the problem is self-evident due to the nature of the problem itself. The organizational units (divisions, departments or subsidiaries in this case) are experiencing the problem of sharing/transferring knowledge. However, the core lays on the operational areas. The problem is spread internationally because of the location of the three offices (Brazil,

Chile, and Peru). Furthermore, the problem affects external relationships because of the international relationships amongst the subsidiaries and their clients.

2.4.4 Ownership of the main problem

In regards to the ownership of the problem, there are three key players involved in the Peru office. This ownership will inevitably transfer to the new employees in Tecport Chile. The individuals in Peru affected are: the GM Alejandro Sarria, the OM/ASM Franco Miglio, and the SPM Geraldo Rengifo. The individuals in Chile will be those who assume the OM/ASM and SPM roles in the new office. It could be detected that these players are not fully aware of the problem, except from the GM. There attempts to deal with this problem has been the implementation of an ERP and a blog-forum in the Peruvian branch.

2.4.5 Magnitude of the main problem

The magnitude of the problem, measured in absolute terms (e.g., amount of working time or money lost, volume of underutilized productive capacity, potential future gains) can be determined once the solutions are implemented. The amount of time spent in training and transferring knowledge, the volume of utilized and underutilized productive capacity, as well as the potential for future gains will be the most measurable factors. The importance of the problem of transferring knowledge is relatively high due to the fact that Tecport Chile is meant to begin operations mid-August. The time constraints make the magnitude of the problem fairly high. Furthermore, the problem is extremely important to the organization as a whole because international expansion and overall growth is imperative to Tecport's goals and success. If the problem is resolved, the organization will gain a productive subsidiary that assists in the domination of the South American market. The resolved problem will ensure a well-operated office in Chile with employees who know the processes and could potentially transfer the knowledge to new employees in the future.

2.4.6 Time perspective of the main problem

The time perspective of the problem can be reduced to the moment Tecport planned to open a subsidiary in Chile. The problem arose at that point because it became apparent that the knowledge had to be transferred to the individuals who would assume the new positions (OM/ASM and SPM) at Tecport Chile. The problem at hand could be anticipated for the future if Tecport chooses to open another office somewhere in South America (e.g., Argentina, Ecuador, or Columbia). If a further subsidiary is to be opened, knowledge will need to be transferred again. At this point, the best possible situation would involve Tecport Chile employees transferring the knowledge to the new subsidiary so that the Tecport Peru office did not have to do what they had done with the Chilean office previously.



Chapter III: Literature Review

3.1 Literature Mapping

In general, the business environment is becoming increasingly complex, stressed by the globalization of the market and the digital-sprawl organizations are exposed to. These conditions put pressure on businesses to keep hip in managing corporate knowledge to maintain and improve competitiveness. The objective of this section is to stimulate management focus on what is relevant and important regarding knowledge management (KM). This would allow better resources allocation and avoid unnecessary costs in infrastructure or human resources tools that may not have impact enough.

The literature review in this document will be structured in five main topics about the main subject of discussion: knowledge management. These are: (a) organizational knowledge, (b) communication and knowledge transfer, (c) dimensions of KM, (d) KM structure and processes, and (e) KM implementation system. Figure 4 shows the disaggregated affairs of study that will contribute to the best consulting process, solution and implementation outcomes.

As for references used in this chapter, the main source was Rao (2012). His book “Knowledge management tools and techniques: Practitioners and experts evaluate KM solutions” was special to this thesis, due that it shows the 20 first-hand narratives and case studies of the best practices successful organizations have had in regards to KM. From this book, the main insights and tools in action from companies all over the world, have been gathered. The rest of references are shown in Figure 5, in the order they appear for a better tracking of the study.

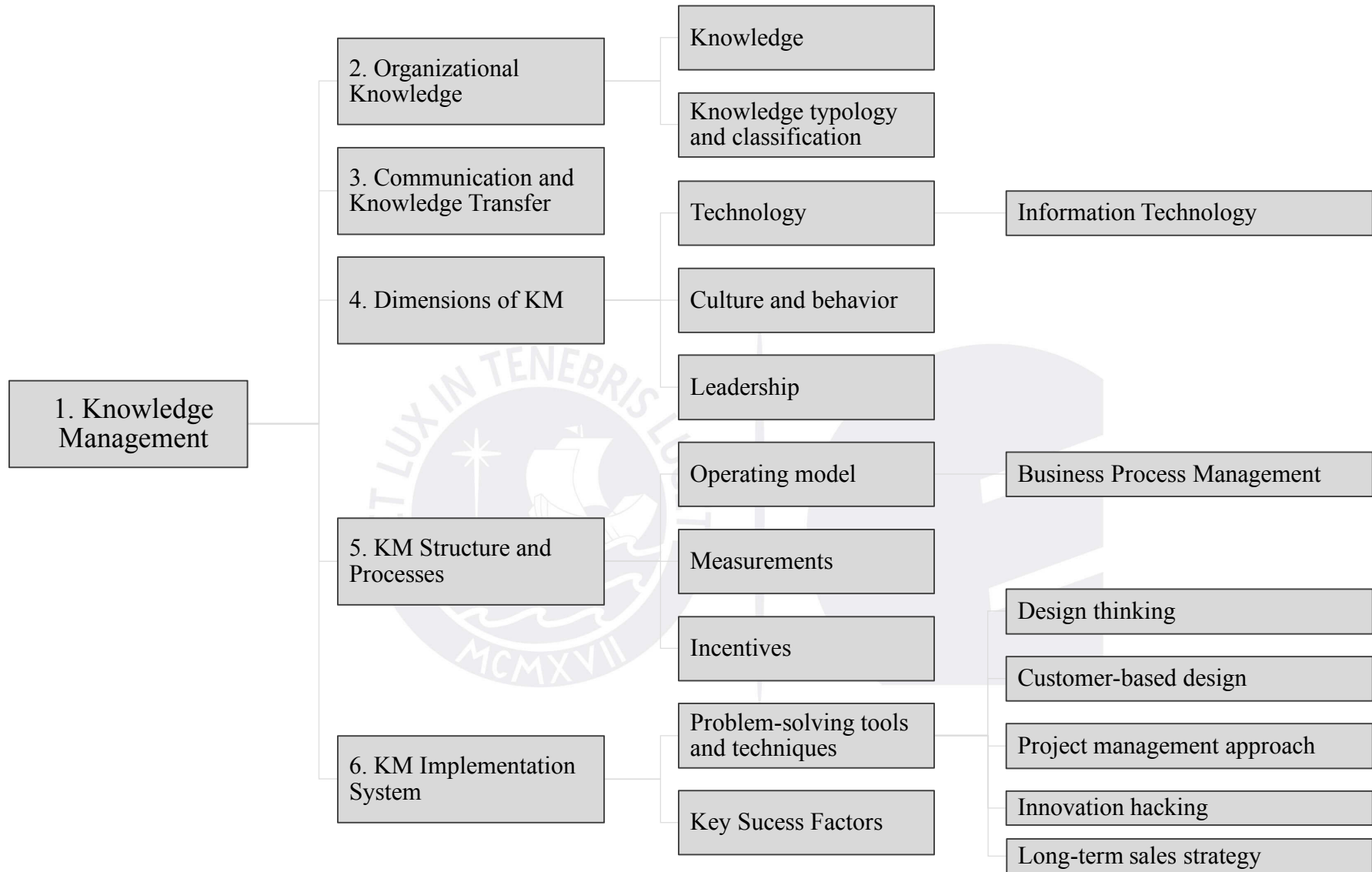


Figure 4. Literature mapping: KM framework.

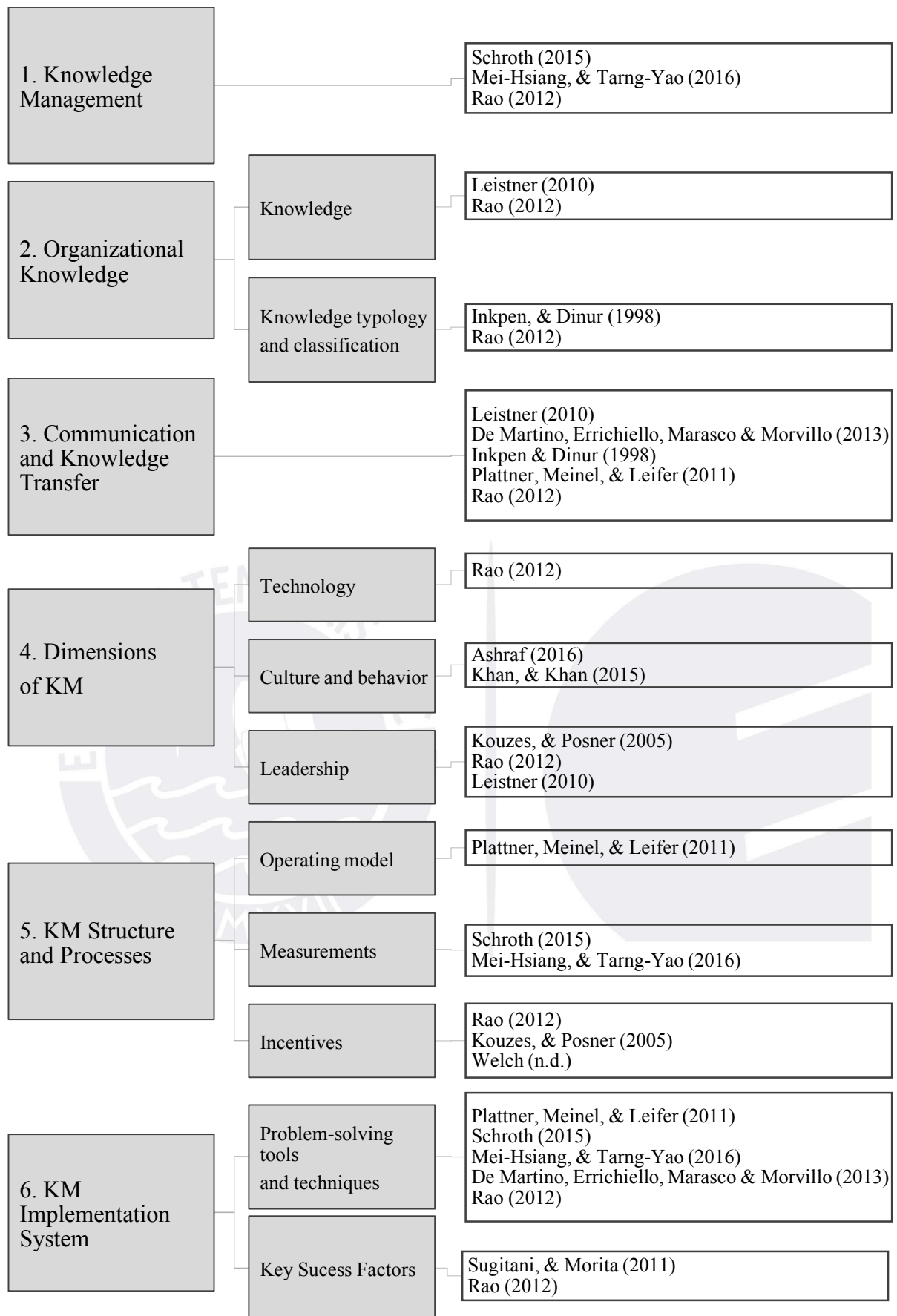


Figure 5. Literature mapping and authors.

3.2 Literature Review

3.2.1 Knowledge management

Definition of KM. Schroth (2015) described Knowledge Management as “the process of capturing, developing, sharing, and using organizational information” (p. 1). This author said, KM is a multidisciplinary approach (administration, computer science, IT, policies, etc.), in which many techniques and processes play together to get the best possible results to an organization. In this attempt, cognitive, social, and organizational aspects merge. Mei-Hsiang & Tarng-Yao (2016) defined KM as “the process through which an organization uses its collective intelligence to accomplish strategic objectives” (p. 80). Rao (2012) quoted that KM “involves people, information, workflows, enabling tools, best practices, alliances, and communities of practice” (p. 3).

Benefits of KM. Schroth (2015) named some long lasting, financial and non-financial benefits of KM to organizations and their individuals. Among them, KM: facilitates smooth organizational changes; permits easier audits; reduces the cycle for developing new products; increases connectivity in internal and external environments; enhances synergies among employees; improves individual know-how. In general, this author emphasizes the benefit of growth of individual and business competitiveness, all of them within the organization. Mei-Hsiang & Tarng-Yao (2016) stated that the basic and primary objective of KM in SMEs is to share and renew tacit and explicit knowledge between employees. This is specially important in SMEs due that the operations rely on individual abilities and it can be risky for the continuity of the business. As a consequence of sharing a renewing, new ideas come up in the daily basis, which reinforces and frames the corporate knowledge. These individual actions in cycles are the ones that will create business value. These Taiwanese authors named some other achievements that KM enables: better communication, stronger customer relationships,

better understanding of decision-making, changes perceptions of relevance, more efficient responses, more effective procedures, and less risks of loss of capabilities.

KM and the size of the organization. Rao (2012) documented experts evaluating KM solutions in large companies. All CEOs agree that KM initiatives have to be people-centric. However, there is a misconception that KM is less important in SMEs than in large companies, due to its absence in some of these companies.

Mei-Hsiang, & Tarng-Yao (2016) investigated the success of KM through an empirical study of small-and medium-sized enterprises in Taiwan. Regardless the difference of national culture, this paper gives insights for SME as it is the case of this thesis. In their thesis, they used a KM success model, which included three dimensions: quality, use and benefit. Within quality, they analyzed: (a) system quality (technology, software and data components), (b) knowledge quality (information available to the right users at the right time), and (c) service quality (resources and encourage to use the KM system). In the use dimension, they analyzed KM use (knowledge circulation, accumulation, sharing, utilization, internalization) and user satisfaction (subjective evaluations of outcomes). As of benefits, they measured the net benefit (average of impacts in the organization and the clients). See Figure 6 for a more visual understanding of this model. The conclusions of this numerical study based on data differ from what was shown before about KM in SMEs: system quality showed the largest significance among the others. More than the knowledge quality and the service quality, the most determinant factor for the KM success is how remote and unfamiliar are the generators of knowledge. For instance, a system with a feature-rich interface will have the highest influence in employees who do not share the same jargon or terminology. In this case, experts may assist in solving inquiries.

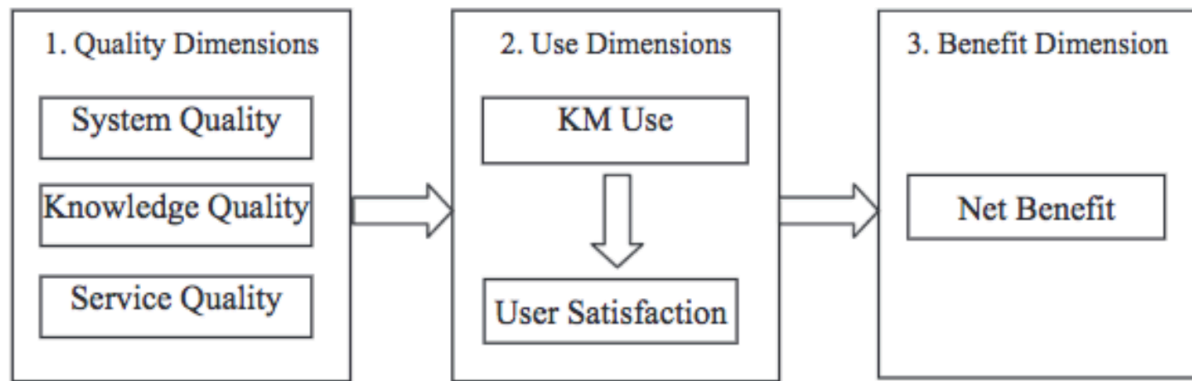


Figure 6. KM success model. Taken from “Investigating the success of knowledge management: An empirical study of small-and medium-sized enterprises”, by W. Mei-Hsiang, & Y. Tarng-Yao, 2016, *Asia Pacific Management Review*, p. 83.

3.2.2 Organizational knowledge

Knowledge. Leistner (2010) claimed that the term “organizational knowledge” got burned to a certain degree, and it actually did. As knowledge has a wide range of meanings, executives, consultants and IT specialists drop anything into this concept. He considered this is a real cause why some companies fail in managing knowledge flow. Leistner explained that the consequences are serial. First, everyone has their own definition of it, thus it embraces concepts that were not meant to be covered; consequently, there are misunderstandings. One proof of it is that some managers consider a “database” as a “knowledge base”.

According to the International Data Corporation (IDC, n.d. and Rao, 2012), “approximately 3.2% of corporate knowledge is incorrect or becomes obsolete every year”. More actualized information has not been found, but this number must have changed. Upwards if considering the disproportionately amount of data businesses deal with nowadays. Downwards if considering that every information can be processed nowadays through analytics to better understand customers’ needs and produce more accurate forecasts. Another estimation of the IDC (Rao, 2012) is that “4.5% of knowledge is lost or hidden due to employee turnover, information mismanagement, and knowledge hoarding” (p. 3). Falling

upon big data in businesses, this number may harass an organization competitiveness in relation with its competitors.

Knowledge typology and classification. The most suitable knowledge typology for the problem in case is the one explained by Inkpen, & Dinur (1998). They divided knowledge in three types: (a) personal knowledge, which is tacit (e.g., emotional intelligence, e-learning, assumptions, beliefs); (b) impersonal knowledge, which is explicit (e.g., symbols, technical information); and (c) interpersonal knowledge, which is implicit (e.g., language, social network, systems, values, vision, norms, habits). Rao (2012) named business rules, which can be classified under interpersonal knowledge, such as such as publication of information, alerts, escalations, urgency *push*-tools, etc.

Rao (2012) referred to *enterprise content* such as videos, corporate policies, external web sites, presentations and press releases. The type of information under these templates are related to best practices, lessons learned, product development, customers, human resources, procedures. This information is not the one stored daily or routinely. This content must be periodically reviewed and updated at the market's pace or even faster to anticipate competitors. As the nature of these contents varies, it is mainly unstructured up to 70% (Rao, 2012, p. 5). This represents a challenge to achieve fit classification, as this information must be versatile and of easy navigation, due that it concerns to multidisciplinary teams. A solution IBM has set up are *enterprise portals*, which are customized workspaces (Rao, 2012, p. 13). There may be a way that adapts to each organization's needs and goals, but as Ben Martin, VP of Global Content Management at J.D. Edwards remarked (n.d.), not disposing of content up front increases costs of re-use. Next, he mentioned an important characteristic of enterprise content: *re-purposing* (Rao, 2012, p. 7).

3.2.3 Communication and knowledge transfer

Leistner (2010) stressed the differentiation between information and knowledge. There is a line between them that is usually misunderstood. Information is data in context, which can be passed. On the other side, knowledge is related to previous experiences and exist only in the mind. Therefore knowledge cannot be managed. What can be managed are enablers for the knowledge to flow.

Communication within the organization is a group of steps and processes, which includes: information (message), understanding, reflection and insight, feedback, and strengthening of the knowledge. De Martino, Errichiello, Marasco, & Morvillo (2013) expressed that innovation comes from interactions between actors, who share complementary knowledge. Reinforcing this practice will develop knowledge-intensive firms in the long run (p. 123). This explains the power of bringing employees together to share their expertise, best practices, bad practices, and receive feedback. Some authors studied the complexity of knowledge transfer. Inkpen, & Dinur (1998) presented a two-axis model, in which they scale knowledge tacitness Vs. number of people involved in the communication (Figure 7). They presented an empirical examination, where lower number of participants and lower tacitness lead to easy transferability, and larger groups and high tacitness lead to harder transferability. This framework –notwithstanding obvious up to a certain extent– helps the purposes of this thesis; however it does not consider the physical distance between the communicators, which plays a determinant role in the analysis of KM.

When addressing an information problem, the solvers tend to frame it in the technological side. However, to communicate something, first of all it needs to be visualized under understandable patterns. Explicit information can be transferred under a written way and become corporate knowledge. On the other side, implicit information may become knowledge through process modeling (Plattner, Meinel, & Leifer, 2011, p. 183). Leistner

(2010) also agreed in that technology is just a part everyone looks at, the idea is not on storing *knowledge* in a database. However, he considers that the rest that should really focus attention is the human factor, which is usually overlooked or ignored (p. 4). Rao (2012) exposed the case of the best-practices of the company Hewlett-Packard, which used a set of building blocks to understand knowledge in the organization. They applied different strategies depending on the different types of information flow (tacit to tacit, explicit to tacit, tacit to explicit, and explicit to explicit), and the different actors and channels (people, technology, processes, and methodologies) throughout its course (P. 200). Figure 8 shows an schema of what is considered the most remarkable KM tool in Hewlett-Packard organization.

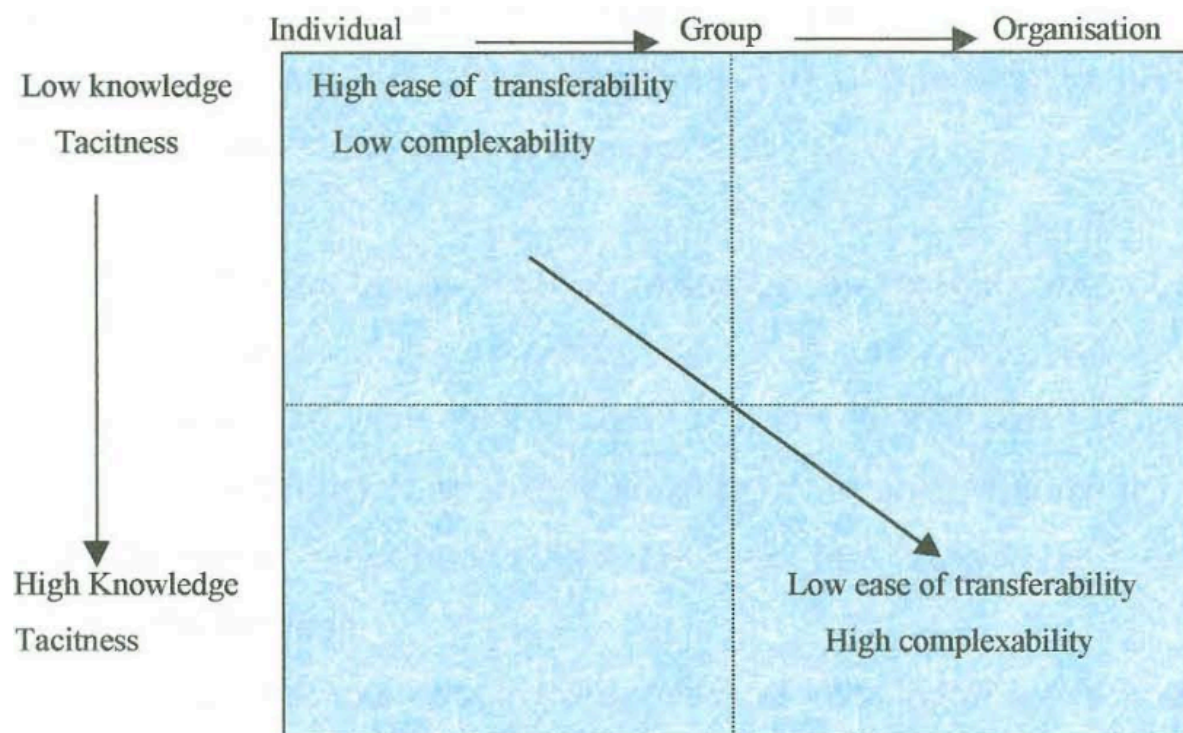


Figure 7. Knowledge transfer classification framework. Taken from “Knowledge Management Processes and International Joint Ventures”, by A. Inkpen, & A. Dinur, 1998, Philadelphia: Temple University, p. 457, Figure 1.

A relatively new wave of communication is being functioning in organizations: storytelling and narratives. It has been proved to be an “effective way to mobilize change” (Rao, 2012, p. 17). The architect of the World Bank’s KM initiative, Stephen Denning, stated (n.d.) that “the most important challenge in this economy is creating conversations”.

This personal storytellings are believed to build community and revitalize businesses. IBM joint this initiative through “participatory observation, anecdotes circles, deep immersion, organizational metaphors, and naïve interviews”, and NASA through Transfer Wisdom Workshops and Shared Experiences Program (Rao, 2012, p. 18). Another break-through, non-conventional way of corporate communication is *knowledge blogging* (or *k-logs*). This follows a similar path as storytelling, via exploration, think-aloud behaviour, discovery of new interests, and peer recognition (p. 18).

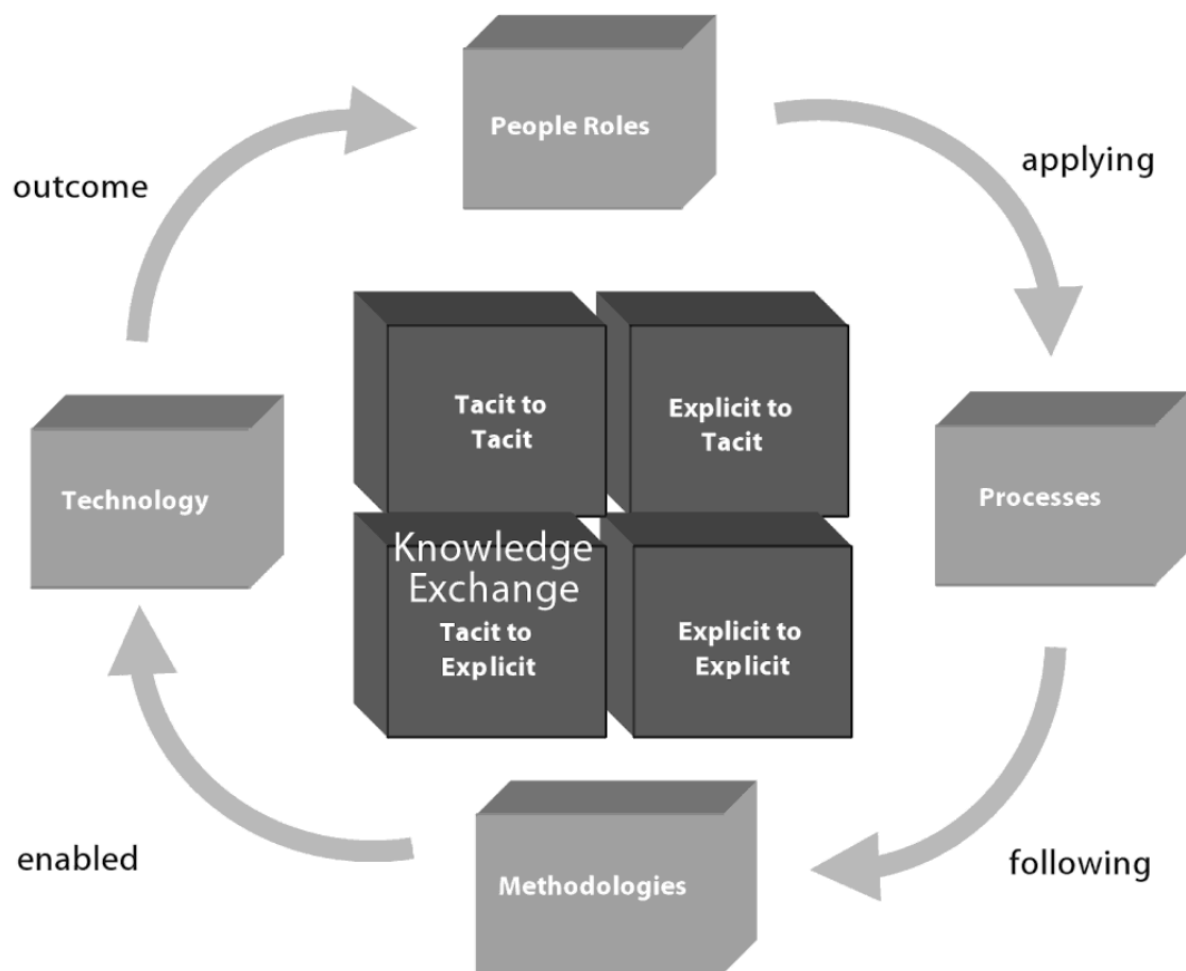


Figure 8. KM building blocks at Hewlett-Packard. Taken from “Knowledge management tools and techniques: Practitioners and experts evaluate KM solutions”, by M. Rao, 2012, *Taylor and Francis*, p. 201, Figure 13.4.

3.2.4 Dimensions of KM

Information Technology. Information technology (IT) fights the “info-glut” or information overload that organizations deal with nowadays. IT is every technology assisting

information management. IT embraces the KM-enabling tools, such as an intranet and enterprise resource planning (ERP), or to further extent, business intelligence systems. Rao (2012) stressed that the reason why IT concept is important, is beyond data storage. This last characteristic is already part of everyone's lives in the 21st. century. The real issue transcends: "technology enables new knowledge behaviours" (p. 2).

The *digital-sprawl* in organizations' intranet makes it necessary to address three concepts of information storage based on IT: information *taxonomy*, *groupware*, and *knowledge mobilization* (Rao, 2012, p. 8). (a) Taxonomy in this context is the hierarchical organization of information based on the algorithms of usage, relevance, or any other relevant factor for the organization (e.g., accounts control). Besides satisfying a need of finding relevant information in time, information taxonomy delights behaviours, tasks, vocabulary, and governance. (b) On the human-side of IT, groupware embraces: affinity building, knowledge mapping, threading, synchronization, polling, group document creation, rating, anonymity, notification, instant messaging, and access management" (Rao, 2012, p. 9). All these are aspects to consider when having information under a collaborative usage, for instance, as peer-to-peer (P2P), inter-departmental, inter-enterprises, etc. (c) Maybe one of the most emerging trends in businesses is mobile technologies (laptops and smartphones specifically). Mobilization has reshaped everything in the industries, markets and enterprises, and knowledge mobilization is not the exception. IT has allowed easy communication in real time without boundaries of space nor time. Examples of mobility-enabling technologies are: sales force automation for ordering and disbursing products; the voice-driven portable computers implemented by General Motors; unlimited WAN, LAN and PAN networks (p. 19); etc.

Culture and behavior. Regarding behavior, the big questions are: how employees act when they are on the job; if there are common behaviors, either good or bad; what having this

job mean to the employees; and if they would go elsewhere if they had the chance. These are specific types of behavior very peculiar of each worker or a clusters of them in an organization (e.g., different departments with different leaders). Behavior can be controlled by good leaders, however culture is a much more complex issue.

Ashraf (2016) argued that to harmonize KM with the philosophies of total quality management (TQM) enhance performance excellence in organizations (p. 200). The author explained that KM transforms workers' activities "towards support and trustworthiness of sharing knowledge" among them (p. 201). He showed that the connection between KM and TQM is *corporate culture*, which could shape the behaviour of the employees. Ashraf supported this by developing a theoretical framework based on the hypothesis of different cultures and measurements for TQM. The classifications of cultures were hierarchical, rational, developmental and group, and the measurements of TQM were quality improvement and cost reduction (p. 203). After testing it in some manufacturing firms in Pakistan, he concludes that rational and hierarchical cultures had most impact in KM and TQM in the country (p. 209). Extrapolating this study to other types of operations and different countries, it could be said that corporate culture is an enabler for KM to boost TQM in organizations.

In the paper "Understanding Ethnicity and National Culture: A Theoretical Perspective on Knowledge Management in the Organization", Khan, & Khan (2015) analyzed how national culture impacts the application of KM models. This paper is specially interesting as Tecport is a regional distributor in three countries in Latin America, managing dealers in the rest of the countries in the region, and dealing with suppliers from other continents. Some of the interesting findings of this paper are: (a) firms that understand cross-culturalism have a *knowledge advantage* (p. 52). (b) Hofstede has been proved to be the best tool in comparing national cultural patterns affecting businesses (p. 53). Hofstede's most relevant cultural features that affect KM in heterogeneous teams are masculinity, power

distance, uncertainty avoidance and collectivism (p. 54). For instance, some culture as the Chinese are reluctant to share their own “lessons” if the receiver is not perceived as part of the community, as a result of their collectivist nature. This is a point of analysis in this thesis as the goal is to effectively flow knowledge among the subsidiaries in three countries.

(c) Apart from the Hofstede dimensions, prejudice and limited absorptive capacity are first-order barriers to KM in organizations. These two mean ease at doing preconception, and receptivity to tacit knowledge and technological changes respectively (p. 55). (d) The second-order barriers on KM are *knowledge hoarding* and *knowledge stickiness*, which are individual and collective perceptions of knowledge as power, and attempts for maintaining the status quo, urging a non-healthy competition among employees (p. 56). (e) It is important also to take a look at the ethnic boundaries and competition as Peru and Chile share the same history until the colonial age. Finally, (f) Corporate cultures (understood as ethnicities) have preferences between symbolic Vs. semantic learning, verbal Vs. visual information, etc. It is a great insight for a leaders to analyze the style of the organization. The whole study of Khan, & Khan (2015) is shown in Figure 9 below.

Leadership. In the book “Brindar Aliento” (“Encouraging the heart” in its English version), Kouzes, & Posner (2005) explained the five essential practices that every great leader must have: (a) he challenges the process, (b) he inspires a shared vision, (c) he enables others to act, (d) he serves as a model, and (e) he encourages the heart. Besides, Kouzes, & Posner (2005) advised a seven-step *recipe* to stimulate and motivate others: (a) to establish clear objectives, (b) to always hope for the best, (c) to pay attention, (d) to personalize acknowledgement, (e) to use storytelling, (f) to celebrate together, and (h) to walk-the-talk. In a phase of change as it is to implement a new KM system, these five extraordinary features and these seven practices are a must in a leader to succeed.

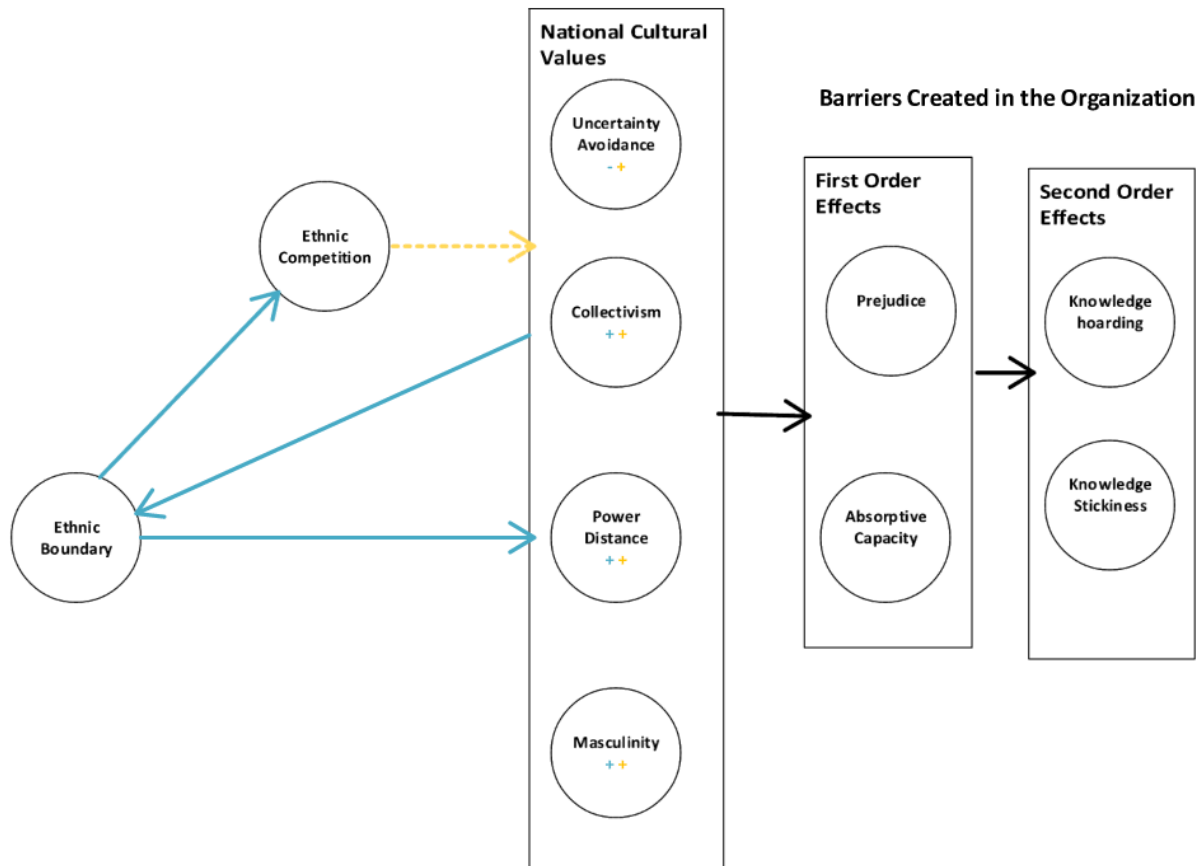


Figure 9. National and ethnic cultural values, and knowledge sharing barriers in organizations. Taken from “Understanding Ethnicity and National Culture: A Theoretical Perspective on Knowledge Management in the Organization”, by S. R. Khan, & I. A. Khan, 2014, *Wiley Online Library*, p. 56.

Furthermore, Rao (2012) gave a managerial advice for executives regarding this topic: to be prepared to deal with situations of knowledge hoarding attitude in some employees (maybe based on selfishness or insecurity), or even cynicism in migrating to new KM tools (p. 56). Another author -Leistner (2010)- brought an important point to consider for this purpose: learning is reciprocal (p. 3). This implies that one employee will be willing to share information to another when he will feel that he also received relevant information from his peers and it allowed him a new level of understanding. This represents a great insight for executive positions, as knowledge sharing must make sense, must be practical, and must be created in the right environment.

3.2.5 KM Structure and processes

Operating model - Business Process management. At part IV – Design Thinking in Information Technology, section 1 – Bringing Design Thinking to Business Process Modeling, Plattner, Meinel, & Leifer (2011) stated that “business process management is at the heart of organizations” (p. 181). Business Process Management (BPM) is not only a tool to structure work in organizations as it was understood before. Furthermore BPM is a way to understand and communicate throughout the human resources in a company and group of companies. The authors considered that process models moderate this communication needed between the parties involved in a business, because they set a common understanding. In this sense, BPM administrates end-to-end business processes since the farthest provider to the latest consumer, providing a governance now and into the future. What specifically is been communicated through a BPM system? – Plattner et al. indicated (p. 182) that BPM shows the route in: (a) what information must be gathered, (b) which tasks must be completed, and (c) which decisions must be taken to complete the flow of processes. A transcendent advantage of the BPM is that under these standardize processes, everyone is able to feed knowledge as information is available in a comprehensive way. This means BPM can be used as a driver of innovation.

Measurements. The big question with measuring is how to deal with it. As it was reviewed before, the human factor is determinant for KM. Employee engagement impacts customer loyalty. Schroth (2015) suggested “psychometric tools” (p. 2) to measure and benchmark, plus incentives able to shape the learning processes and the organizational culture in general.

The Taiwanese authors analyzing KM in SMEs (Mei-Hsiang, & Tarng-Yao, 2016) suggested three groups of dynamic measures: KM use, user satisfaction, and net benefit. This means that their perspective is to cover the internal daily welfare, the customer gain and the

medium and long term outcomes. Table 3 shows the list of indicators and weights these authors suggest. As it can be seen, all of them are not directly numerically measurable and are all of individual perception. These 31 items of data compiled throughout all the positions in an organization may be exhausting to routinely process (e.g., monthly). It would require an analysis of each organization to determine so. However, it would definitely serve as a good exercise during the implementation process to shape the best fit framework of KM. Regarding the two user satisfaction measures, considering a B2B model, it may be a good practice to use it after every service to analyze if the KM is noticed outside the borders of the offices.

Incentives. Rao (2012) emphasized a key lesson when assessing KM solutions is that no matter what incentive, reward, recognition, or motivation, it is a must that employees notice and experience by themselves the direct benefits of KM. However, in second place, the best way is to excel constant “enthusiasm, participation and involvement” (p. 1). For this reason -in this labor of attempting motivation-, it is relevant to analyze what can be done to improve the communication between the ones that *own* the knowledge in the company to the ones that do not, and also the way around. Participation is a characteristic that delivers outcomes worth motivating. Enthusiasm and involvement are key factors for concrete acts of incentives, for instance, congratulations in public or promotions.

Kouzes, & Posner (2005) also provided advices for leaders to compensate and recognize the rest in businesses (employees, peers, suppliers, clients, strategic partners, etc.). He recognized that there is an avidity of acknowledgement in every person that deserves attention (p. 28). For this purpose, he proposed incentives, rewards and punishments according to performance.

Table 3

List of Individual Measures of KM

Construct	Code	Measure Item
KM Use	ku1	I fully understand the core knowledge necessary for my tasks.
	ku2	We refer to corporate database before processing tasks.
	ku3	We extensively search through customer and task-related databases to obtain knowledge necessary for the tasks.
	ku4	We try to store expertise on new tasks design and development.
	ku5	We try to store legal guidelines and policies related to tasks.
	ku6	We are able to systematically administer knowledge necessary for the tasks and store it for future usage.
	ku7	We document such knowledge needed for the tasks.
	ku8	We summarize education results and store them.
	ku9	We share information and knowledge necessary for the tasks.
	ku10	We improve task efficiency by sharing information and knowledge.
	ku11	We promote sharing of information and knowledge with other teams.
	ku12	We developed information systems, like intranet and electronic bulletin boards, to share information and knowledge.
	ku13	EDI is extensively used to facilitate processing tasks.
	ku14	Work flow diagrams are required and used in performing tasks.
	ku15	There exists a culture encouraging knowledge sharing.
	ku16	There exist incentive and benefit policies for new idea suggestions in utilizing existing knowledge.
	ku17	There are research and educational programs.
	ku18	I can use the internet to obtain knowledge for the tasks.
	ku19	I can refer to best practices and apply them to my tasks.
User Satisfaction	us1	As a whole, I am satisfied with the knowledge management system.
	us2	As a whole, the knowledge management system is successful.
Net Benefit	nb1	Your KMS helps you to detect work-related problems.
	nb2	Your KMS enlightens you to new ways of thinking.
	nb3	Your KMS changes the way you do things in a way beneficial to the organization's overall.
	nb4	Your KMS improves the decisions you make.
	nb5	Your KMS helps you to make fewer mistakes.
	nb6	Your KMS allows better experience transfer and knowledge reuse.
	nb7	Your KMS reduces duplicate work.
	nb8	Your KMS allows you faster cycle time to problem resolution.

Note. Adapted from “Investigating the success of knowledge management: An empirical study of small-and medium-sized enterprises”, by W. Mei-Hsiang, & Y. Tarng-Yao, 2016, *Asia Pacific Management Review*, p. 87, Table 3.

Jack Welch, ex-president of General Electrics went farther in this basis. Not only performance is a determinant for incentives, but also if the employee shares the

organizational culture. Under this philosophy, Welch (n.d.) defined four groups of employees: (a) peak performers and culture killers, (b) peak performers and culture champions, (c) poor performers and culture killers, and (d) poor performers and culture champions. In Figure 10, the vertical axis is performance and the horizontal axis is value sharing. Welch suggested three groups of rewards: promotion, second chance or lay-off. This is effective in big organizations, but in SMEs, where human resources are scarce, more individualistic actions must be taken.

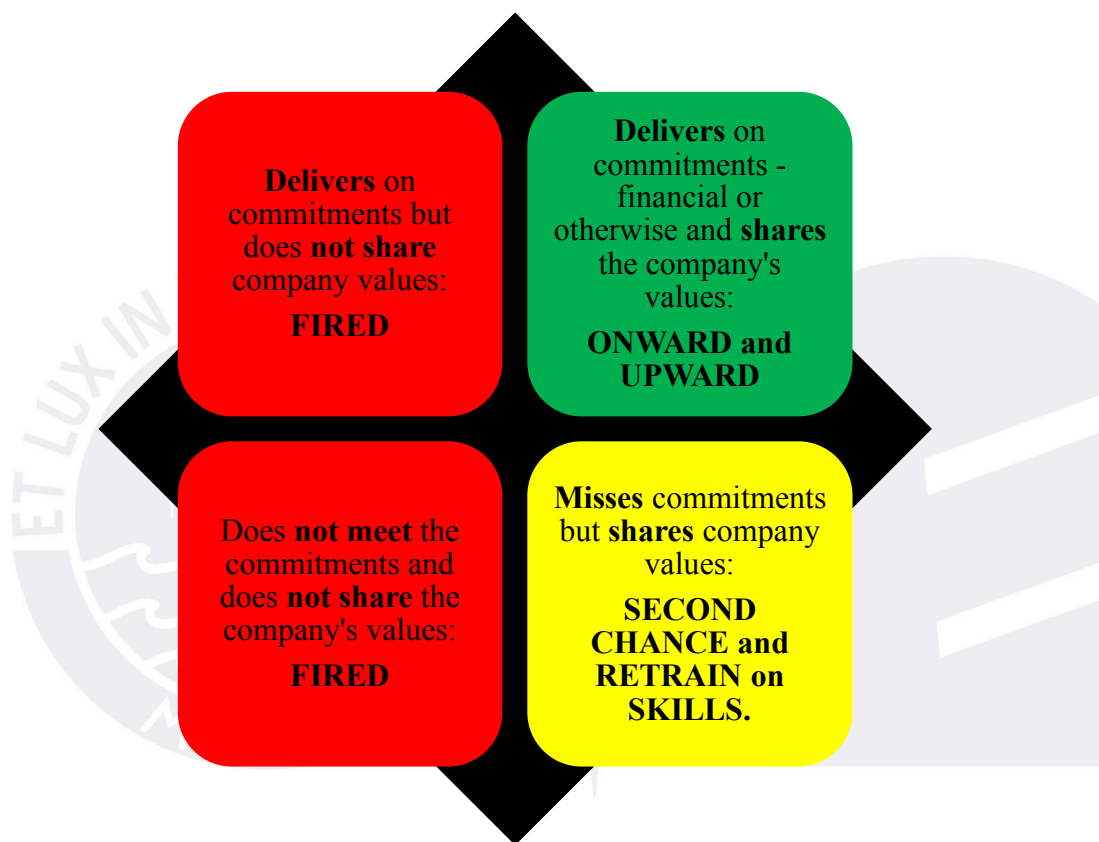


Figure 10. Decision making based on the performance-values matrix. Adapted from “GE’s Two-decade Transformation: Jack Welch’s Leadership”, by C. Bartlett, & M. Wozny, 1999, *Harvard Business School*, case 399-150. Boston, MA: Harvard Business School Publishing.

3.2.6 KM Implementation system

Plattner et al. (2011) recommended two aspects when implementing the BPM, which show relevant to this consulting task. First of all, to have process analysts leading the whole design thinking procedure. This leaders have experience in the different types of process modelling, and also to have listening skills and to be empathetic and embrace all opinions.

Second, these authors visualized the implementation process as workshops where ideas come from framed, structured and led brainstorming, written on whiteboards, flip charts and post-its (p. 183). It will become an iterating process of negotiation ending in a consensus of a model which the interested parties have already knowledge. The authors stated that showing a model to the stakeholders may be counterproductive, due to misunderstandings and complications to *read* it. In consequence, further discomfort and rejection, besides loss of time and higher investment (p. 184). These authors named an important step of implementation: the Tangible Business Process Modeling (TBPM). It is the moment when the iteration arrives to an iconography that represents or nearly represents the real process in the organization (p. 192). TBPM encompasses with the *Tangible Rule* of design thinking: “making ideas tangible always facilitates communication” (p. xiii).

Another author -Schroth (2015)- shared the first opinion of Plattner et al. (2011), and stressed the idea of having a *chief knowledge officer* (CKO) in an organization. This person would lead everything related to the intangible assets of the organization, such as inventory of knowledge (individuals, policies, procedures, problem-solving techniques, intellectual property, patents, and customer relationships). The author suggested this position as permanent, but it could be temporary while the implementation process is assured, and another chief officer in the organization could take the responsibilities from there. Also, for the KM implementation, Schroth (2015) suggested a five-steps general procedure: (a) collect relevant data; (b) determine a framework for KM; (c) Promote a KM agenda so it is used by everyone in the organization; (d) construct a secure and accessible infrastructure for data storage; and (e) communication, coordination and connections for effective use. In the first stage, a reflective thinking is important for a fit identification and categorization of information, which matches the organization’s needs and goals. This author remarked that it

is a common mistake to capture information that is not needed that constraints and obstructs the daily dynamics.

In their empirical study, Mei-Hsiang, & Tarng-Yao (2016) concluded that service quality is more influencing factor than knowledge or system quality, in customer satisfaction in SMEs. This may sound obvious, but it is not. This actually reveals that how well employees interact with customers reflects most regardless deficiencies in information itself or the infrastructure. The Taiwanese authors suggests to use this as an input for the implementation process. It means that the implementation process in an SME may be conveyed in praxis, while employees are developing their labors. The size of the organization plays an important role, as if there is a large staff, the implementation may take longer and have differentiated effects within peers, which would probably cause frustrations.

Problem-solving tools and techniques.

Design thinking. The philosophy of design thinking brings tools, activities, and values to innovate. As Plattner, Meinel, & Leifer (2011) reported, this methodology attacks problem forming, solving and design (p. 15). These authors conveyed that design thinking is an iterative series of five major stages: (re) define the problem, need finding and benchmarking, *bodystorm*, prototype and test. The first stage means that the problem is not fixed or predetermined, there must be room left for ambiguity or error, as the authors stated “design never ends”. This leads to the second stage, which consists on understanding the users and design space. What this methodology emphasizes is its end-user focus, which means that every idea, proposal, change or innovation must address benefits for the clients, which is precisely the third stage. The fourth and fifth stages –prototype and test– suggest building and learning, and start the iteration all over again. What is important about design thinking is that it embraces three dimensions: technical feasibility (technology), economic viability (business) and desirability by the user (human factor) (p. xxi). Many processes in

businesses lack acceptance by end users. Design thinking's first rule is precisely the "human-centric point of view" (p. xv). Being this so, it integrates multidisciplinary collaboration in order to achieve and exceed clients' satisfaction, making use of the technology available and not affecting the economy of the company.

Customer-based design. The study conducted by De Martino, Errichiello, Marasco, & Morvillo (2013) focused mainly in innovation in seaports, which are one of the two Tecport LA's target markets. The authors emphasized that the fast pace of technology in the market for logistic services, demand a collaborative attitude from providers to strengthen their capabilities. Among the three factors that co-potentiate innovation and represent sources of competitiveness are: technology, knowledge and relationships network, which the authors named the "fertile ground" (p. 124). Being these knowledge networks so important for seaports, and considering that depots must experience similar challenges, these synergies represent a great opportunity for customer loyalty.

Project management approach. In Figure 8, it is shown a new approach for KM problem-solving methodology. Rao (2012) analyzed that business leaders often *jump* straight from "what information is needed?" to the solution. The author attempted to develop this abrupt way into seven steps via the focus of project management (See Figure 11). The problem with this methodology is that the customer *persona* is not involved.

The other two methodologies worth analyzing are: innovation hacking and long-term sales strategy. The first one centers in defining the KM system through brainstorming in multi-disciplinary teams. The second one starts setting the vision and long-terms goals of the organization, and the strategies start being designed from there.

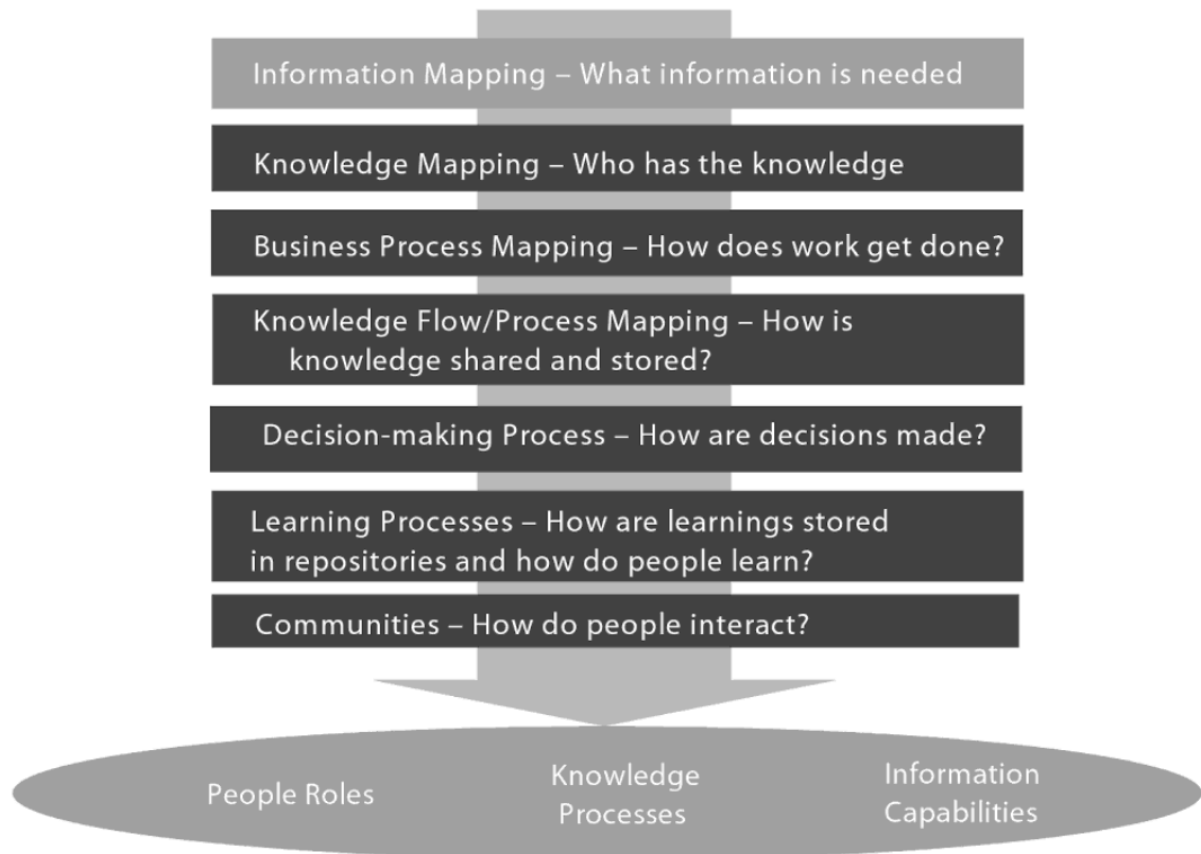


Figure 11. KM project components. Adapted from Knowledge management tools and techniques: Practitioners and experts evaluate KM solutions, by M. Rao, 2012, Taylor and Francis, p. 203, Figure 13.4.

Key success factors. In his book of best practices in KM around the world, Rao (2012) makes a list of “15 reasons why some KM tool implementations may fail to deliver” (p. 56. See Table 4). This lineup represents a checklist from every implementer in this area. It is worth it taking the necessary time to analyze this information in different stages of the implementation, even before it, first individually and then in teams among all the user of the KM system. The process analyzed and suggested to conduct this type of analysis is the iterative interrogative technique named “5 whys”, which explores the cause-and-effect liaisons around one specific quality problem (Sugitani, & Morita, 2011). This technique based on finding the accurate answers to five-why questions, drives clarity and allows a complete understanding of a failing situation. The key advice with the five-whys is to focus

in the cure and not the symptoms, meaning to taking real actions that change the root cause rather than spending resources in trying to relieve the pain (p. 3).

Table 4

Key Success Factors for KM implementations

Reasons why some KM tool implementations may fail to deliver	
1	Leading KM with IT only.
2	Lack of a common IT platform.
3	Low trust in security of KM tool.
4	Too many switches in IT platforms.
5	Inertia in switching to new IT tool.
6	Inadequate training in KM tool usage.
7	Low usability and intuitiveness of KM tools.
8	Lack of user participation in KM tool design.
9	Inflexibility of KM tool with differing devices.
10	Low performance of KM tools (e.g., slow speed).
11	KM tools unable to check information overload.
12	Lack of maintenance and upgrading of KM tools.
13	Lack of alignment between KM tools and workflow.
14	Replacing key human interfaces with technological contact.
15	Poor project management leading to improper KM tool implementation.

Note. Adapted from “Knowledge management tools and techniques: Practitioners and experts evaluate KM solutions”, by M. Rao, 2012, *Taylor and Francis*, p. 56, Sidebar 5.

3.3 Conclusions

The literature review in this chapter revealed some key aspects for the problem this thesis attempts to solve. It was analyzed the level of influence of technology, culture, behavior and leadership in knowledge management, to guide the problem-solving throughout the most impactful factors. Also, this chapter showed that KM must be treated differently depending on the size of the company. Besides, the KM structure and processes were analyzed to guide the solution of this thesis; as well as problem-solving tools to help assist in the implementation stages.

Organizational knowledge is one of the most important assets in an organization, but it is also what creates most struggles. The question has always been how to make the best use of it, and the typical answers that came up have been technical solutions or technology. Of course these systems are enablers, but they are not the drivers of knowledge flow. One of the most important conclusions of this chapter is that the main factors that allow to share and leverage knowledge in organizations are human-based.

Knowledge management has been the center of study of this literature review as it impacts directly in the competitiveness of the organizations. This chapter allows to conclude that employees' are motivated to share under a fair process in an appropriate corporate culture. Also that how measuring is treated is of major relevance. Besides, the environment or the type of corporate culture is determinant for the long-term value of knowledge, but also may represent barriers for the organizations if they are not properly managed.

In SMEs there is a lack of practice of KM, but as the business grows this need becomes imperative. In contrast with large enterprises, the human factor seem to be in second place of importance, as first there is an urgency for physical or virtual infrastructure and interfaces which allow to build the whole knowledge database and communication. However, if assessing the case through a long-term strategy, it is imperative to construct on human behavior and habits from beginning.

Business Process Management system appears to be a the most accurate tool for the problem in case. There will be need more analysis and assessment to define so. The BPM system has two advantages' for this case: it is customer-centric and it connects the whole supply chain. Finally, for the implementation stage, design thinking involves employees in the definition and start up of the KM system, around the objective of clients' best satisfaction.

Chapter IV: Analysis

This chapter aims to analyze the factors that may be affecting the knowledge management in Tecport LA, as the literature review suggested (see Figure 4). For this purpose, the qualitative and quantitative analysis is divided into six parts. First of all, it provides detailed insight on both the Peruvian and Chilean markets. Secondly, it utilizes the Hofstede framework to differentiate Peruvian, Brazilian and Chilean cultures. Then, it analyzes Tecport's human capital and its cross-cultural functional teams. Later on, an insight into Tecport's corporate culture as a measure to effectively transfer knowledge to Chile. Finally, the corporation's previous attempts to transfer knowledge. A conclusions' section will wrap up the chapter.

4.1 Comparative Analysis of Peruvian and Chilean Market in the Port Industry

4.1.1 Analysis of the Peruvian market

The region of Peru is enriched with invaluable natural resources. It is the next biggest producer of copper in the globe after Chile and controls the second-biggest accepted copper reserve (KPMG, 2013). As such it is crucial for all ports infrastructure to withstand activities as port activities account for significant portion of its total GDP (KPMG, 2015).

Port Callao is the largest and most valuable ports in Peru followed by Port Ilo, Pisco and Chimbote. New investment in the Port of Ilo and the continued effort for increased activities in Port Callao are more probable to indirectly raise the demand for heavy machinery. The idea behind terminal expansion is to boost cargo capacity. Peru's ability to achieve this will aid Tecport's market share (Port Strategy, 2015). Due to increased private sector investment in this division, Peru appears to be demonstrating progressive movement as a favorable location to do business. It is evident that port activities play a significant role in the Peruvian economy as the government has positioned the industry in such a way that

attracts foreign investments. As a result, Tecport has the opportunity to successfully develop within the market which it presently operates.

Time and resources have been lost as a result of incompetent port operation generated due to unexpected growth the country was unprepared for. This has caused unavailable space required for port activities to expand. Particularly, the port of Callao's inability to receive numerous shipments led to loss of revenue. For instance, between 2011 and 2013 port operations increased by 7.4 % with available port space, terminal capacity became impossible to manage (Hydrant, 2016). However, in order to limit these restrictions in operation, the Peruvian government has commissioned a new project worth about USD 118 million situated close to Jorge Chavez Airport to expand activities with the hope of attracting multiple investors (Hydrant, 2016). This is an advantage that should be leveraged, as port operators will require heavy equipment immediately after the expansion activities are over.

Other regions of the country are also experiencing an increase in port investment. For example, San Martin in the south of Pisco is undergoing construction worth USD 215 million. The port of Salaverry, Port Ilo, and Chimbote in Ancash are also on their way to receiving a development budget (Hydrant, 2015). These developments are giving investors the confidence to invest within this sector. This change is supporting Peru by leveraging some major customers who are planning to enter Chile to opt out for Peru. Tecport should certainly consider this trend as the increased flow of new foreign direct investment into the sector will create major contracting opportunities for Tecport's heavy duty machinery. Additionally, Tecport should consider investing its resources in capturing new companies by investing in new types of machinery. This would help the company to fully enter the energy and mining operation seeing that it indirectly poses some connection with this sector. Additionally, the Minister of Energy and Mines estimated that the government plans to grant this sector approximately USD 73.2 billion between of 2011-2020 (KPMG, 2013).

Nevertheless, it can be argued that the infrastructural deficit around the port in Peru will deter these growths and the possibility for profitable advancement in this sector. In the event that the gap is not bridged in time, Tecport customers are likely to incur more costs that may indirectly affect Tecport and all possible potential investment leading to the likely alternative that private investors may select her neighbor Chile. However, in the event that this happens, Tecport marketers can work towards acquiring these investors and the negative impacts this may have as these private investors could choose to work with companies with years of experience in Chile since Tecport will only be in its early stages of establishment. Given that the infrastructural system in Peru is improving coupled with its better ranking on the ease of doing business in South America, Tecport may consider building its connections and marketing activities in order to draw the potential market share in the heavy equipment sectors.

4.1.2 Analysis of the Chilean market

With its 33 ports divided between private investors and state government, Chile continues to be one of the major countries with the highest port activities. Within the last decade Chile has experienced some structural changes by privatizing some of its ports, this modification has brought about massive investment to major ports in Santiago and Valparaiso. The USD 300 million investment into Puerto Central terminal has created room for Tecport due to increased competition attempting to earn share of from port of Santiago and Valparaiso (Boske, & Harrison, 2016). Tecport can establish relationships before all other new entrants using its new OM.

The improved effort by the Chilean government to boost foreign direct investment is evident as the country is now one of the most appealing locations in South America to conduct business. The environmental laws are firmly outlined as the country moves towards a more sustainable future. The port and mining sector tax management is relatively steady;

however, tension continues to build up as an effort is being made towards increased corporate tax. Presently, the country has over USD 60 billion geared to pipelines, transmission of power and transportation infrastructure development. The European intelligence unit estimated these projects will attract USD 28 billion foreign direct investment by 2017 (KPMG, 2013). In essence, Tecport's timing in establishing a subsidiary in Chile could not have occurred at a better time.

Numerous distinguished incentives are provided by the Chilean government as a tactic to draw foreign direct invest into the port industry. These incentives are administered by the Foreign Investment Statute and the Minister of Transport and Communication (KPMG, 2013). These regulations have not just lead to the increase in port and mining investment, but they have also boosted dominant providers of services and equipment to open businesses. This is why one can understand the reasoning behind Tecport's assertive move into the country. Tapping into another region using connections and experience, in fact, may be the best strategy to adopt in an environment such as Chile.

Failing to acknowledge Chile's effort in setting itself apart in Latin America is impractical, and so will be all argument made on Tecport entry into Chile. All rational point to entering this market, the continued sustainable drive for the business operation to seek better technologies, investment in infrastructural development within the Mining sector, available power supply although expensive, the ease of doing business all justifiable reasons. Tecport must begin to market itself especially through word of mouth using its reputation in Peru as its pride.

Tecport's entry into Chile may be considered an assertive and strategic move. Through Tecport's eyes, it may be the right timing to invade this market, which looks like will have a great impulse anytime soon. Although, it can be argued that the deficit in finding

qualified labor within the port sector will pose as a major threat to the extensive growth, these can be countered by the government continuous investment in skilled training schemes all around the country. One can consider the possibility that Chile is like the case of China, in regards to its early years as an emerging economy. Although the world doubted the real impact it can have on the world economy, they have indeed proved the world wrong as China now holds 16.32% of the world GDP (Quandl, 2015), therefore, provided that Tecport utilizes appropriate strategies, Chile in the next few months may turn into Tecport largest market share.

4.2 Cultural Analysis Between Peru, Chile, and Brazil

Hofstede developed this six dimensional framework that can be used to examine cultures: Power Distance, Individualism, Masculinity, Uncertainty Avoidance, Long Term Orientation and indulgence. Power distance describes the equality and inequality of a nation within its culture while Individualism demonstrates the extent to which individuals or collective groups are responsible for various performance and outcomes. Masculinity exhibits the nature of a country in terms of competitiveness and development while Uncertainty avoidance explains ambiguity. The extent of Long-term orientation despite whether choices are made in the interest of the current situation or have lasting objectives. Lastly, Indulgence scores explain how individuals within a culture manage their impulse (Hofstede, 2016).

The ability to comprehend all six dimension scores accords that one can understand the cultural behavior and habits of Peru, Chile and Brazil. Power distance within these three countries is around the same, decision making is streamlined rather than deliberated upon with subordinates. Hierarchical structure is fixed, well defined and regard for authority is well respected. Although seeking subordinate advice is uncommon in these societies when making decisions, leaders are still expected to display interest and consideration for those under them. In essence when knowledge is being transferred within each subsidiary, the

probability that employees will be submissive to the new knowledge transfer structure and regulations is more probable. However, the capability to utilize both authoritative and consultative system is encouraged as the number of employee at Tecport is relatively small, this gives room for innovation and personal value. Individualism on the other hand reveals high difference in the score, in Brazil compliance and loyalty to collective group are not as appreciated as that of Peru and Chile. This can prove as a barrier to communication, Tecport operate as a family, self reliance and self appraisal will foster conflict as each department always have to work hand in hand with both its local and cross-cultural colleagues.

In terms of Masculinity, Peru and Brazil share a common view where competition rules and the pressure of being the best is eminent. However, Tecport has been able to abolish such behaviors within it organization. Chile femininity behavior should easily fit into that of the other subsidiaries, where employees simply take pleasure in their daily tasks while assisting each other, sharing ideas, promoting a healthy and reduced authoritative work environment will help support efficient knowledge transfer.

Uncertainty avoidance score does not differ significantly within these Latin American countries, as a result the it can be determined that the consultants suggested solution required regulations will doubtlessly be adhered to, although keeping an updated check on Brazil by the headquarter maybe required in other for each implementation stage to run successfully.

Finally, long term orientation and Indulgence in Brazil is relatively higher than that of the other subsidiaries. Brazil posses a forward thinking approach which can be transmitted back to it Peruvian and Chilean colleagues. Impulsive behavior in Chile and Brazil is relatively high, although this can be positive in terms of client's ability to spend on new machinery and maintenance services, on the other hand this cultural behavior can have a negative impact on employees. Negotiating capabilities can be compromised based on negligible behaviors that may cost Tecport, understanding these impact and using the

knowledge transfer regulations in the implementation stage will aid in preventing all possibilities of such occurrences.

The summary of the Hofstede analysis is shown in Figure 12 to provide a summary of the three South American countries' cultural differences, which affect the way of doing businesses, industries' development and their environments.

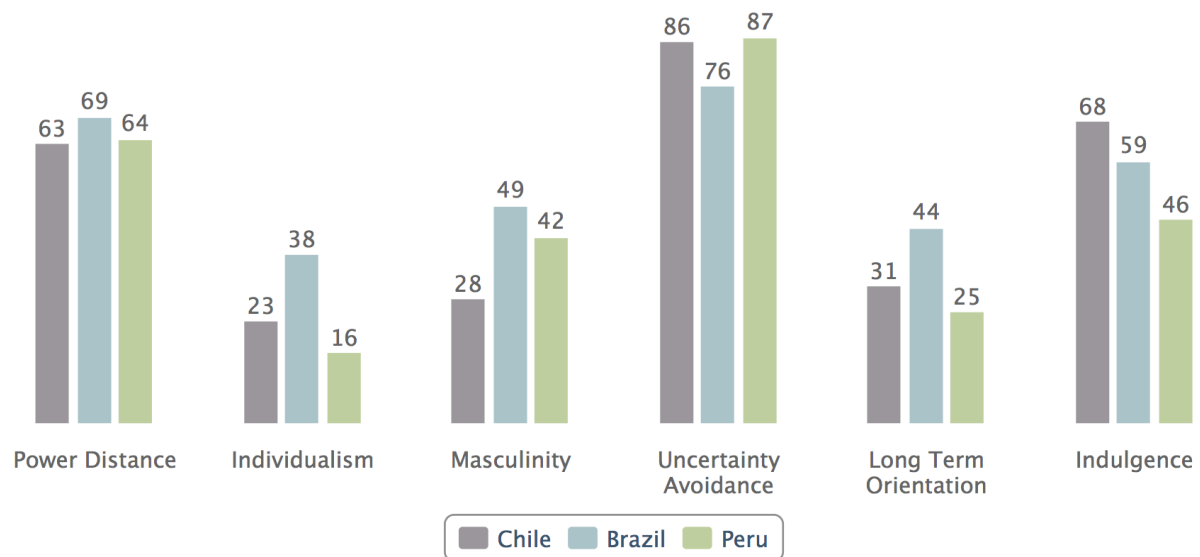


Figure 12. Hofstede analysis Peru-Brazil-Chile. Data are from *Cultural Dimensions of National Culture*, by G. Hofstede, M. Minkov, & Cultures and Organizations, 2010.

4.3 Analysis of the Expansion to Chile

4.3.1 Structure

Having waited and prepared for a year, Tecport's management took the decision of carrying out their expansion plan to Chile. The plan is to open its office in Valparaiso, Chile by mid-August, with 1-2 machines ready to rent. Due to the unified organization structure of corporation not being well-established yet, the Chilean branch is going to generally copy the structure of Tecport headquarters at current stage, which includes an Operations Manager who has been selected, an Administrative Manager, and Mr. Alejandro Sarria himself as General Manager. They are also willing to send people there and back to give the service and to transfer the knowledge. Considering the new employees are going to be hired in Chilean

local labor market, the GM Mr. Alejandro would be the only knowledge and group culture disseminator who takes care of the training and knowledge transfer process.

4.3.2 Timing

Tecport's decision to enter the Chilean market considered several criteria: (a) The rental business in Chile is just starting to develop; normally, companies own equipment but do not have services such as maintenance. There is potential for the incentive of renting equipment, and start the new frontier of the market in Chile. (b) The local dealer who previously cooperated with Tecport is not doing well in Chile, which has encouraged Tecport to open office as soon as possible and to monitor the operation by themselves. (c) The Chilean port equipment market is dominated primarily by one company which possesses about 45% of the market. Without many players in equipment service market, it is time for Tecport to enter.

4.3.3 Strategies

There are two main strategies associated with this expansion into the Chilean market: (a) to differentiate through service-orientation, to integrate recourses, and then to gradually develop into the leading company of the port equipment rental industry in Chile for the long-run. And (b) The group has also planned to develop equipment renewal and repowering of services in Chile. This refers to buying second hand machines, potentiate them and resell them to new customers.

4.4 Analysis of Human Capital

4.4.1 Organizational structure

Based on the several meetings with the GM Mr. Alejandro Sarria, it has been identified that except Mr. Alejandro himself, the internal organization structured in the Peru headquarter consists of operation manager as well as the after-sales manager Mr. Franco, the Spare Parts Manager Mr. Geraldo, and an Administration Manager. Other branches including

Equiports, Tecport Brazil and the upcoming Tecport Chile all have a similar structure and all of which directly report to the headquarter in Peru. The dealers in different countries have their own various structures, while Tecport Peru is only following up their sales outputs (Figure 13). Based on the current structure they have, it is not hard to see that the OM and SPM in the Tecport headquarters have good control of information throughout the whole organization. However, the same division among different branches have not connected well with each other. There is a lack of information transfer between these branches.

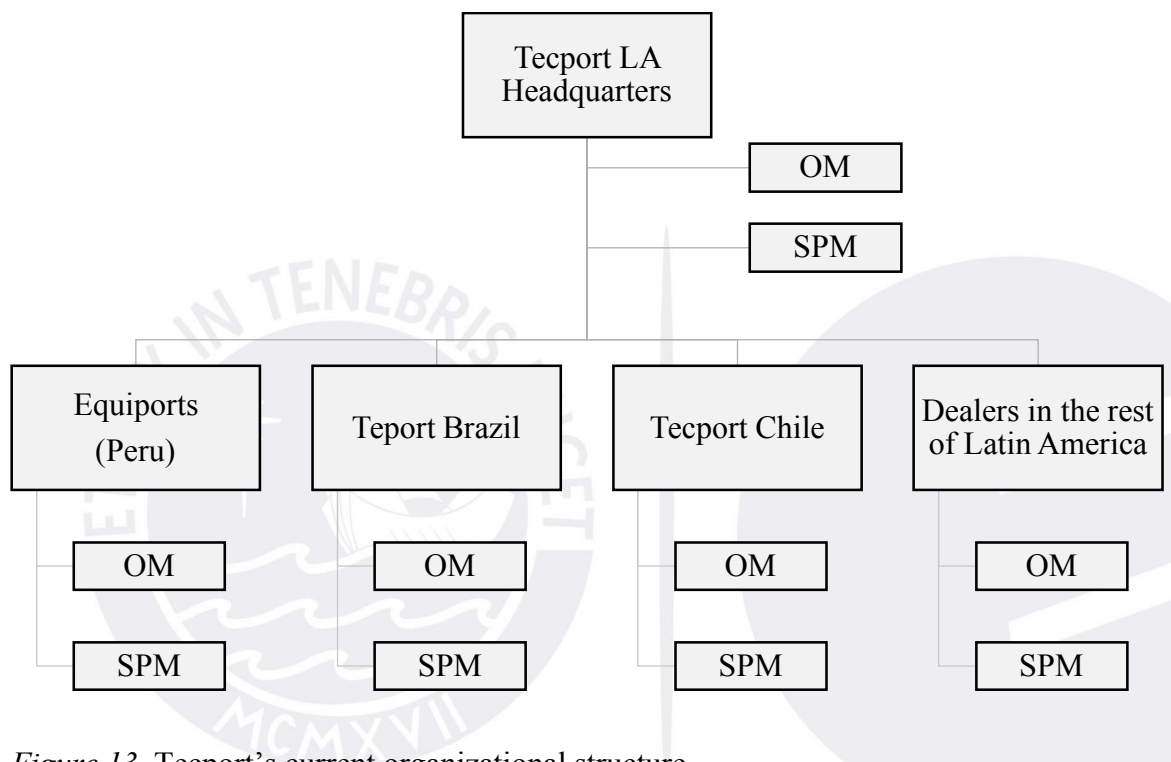


Figure 13. Tecport's current organizational structure.

Another perspective of corporate internal structure as expected, the top management level should consist of Administration Manager, Accounting Manager, Chief Operating Manager and Management Representative. This information was obtained from the Organizational and Functional Handbook (Manual de Organización y Funciones) updated up to 2016. As Equiports' headquarter and Tecport headquarter share the same office and belong to unified leadership, there is a sense of reference regarding the capital structure. The top management level directly report to the CEO. The management representative is

appointed and given authority by top management to manage, monitor, evaluate and coordinate the quality management throughout the organization. Then as the subordinate level, the spare part adviser and after-sales manager directly report to the operation manager, they respond to the two main operation channels for the company. Also, the Administrative Assistant and Accounting Assistant respectively report to their managers. They are responsible for analyzing the information from operation level staffs (Figure 14). Comparing with the current managerial division they applied, there is plenty of room for Tecport to strengthen the organizational structure which is an urgent affair for their expansion plan.

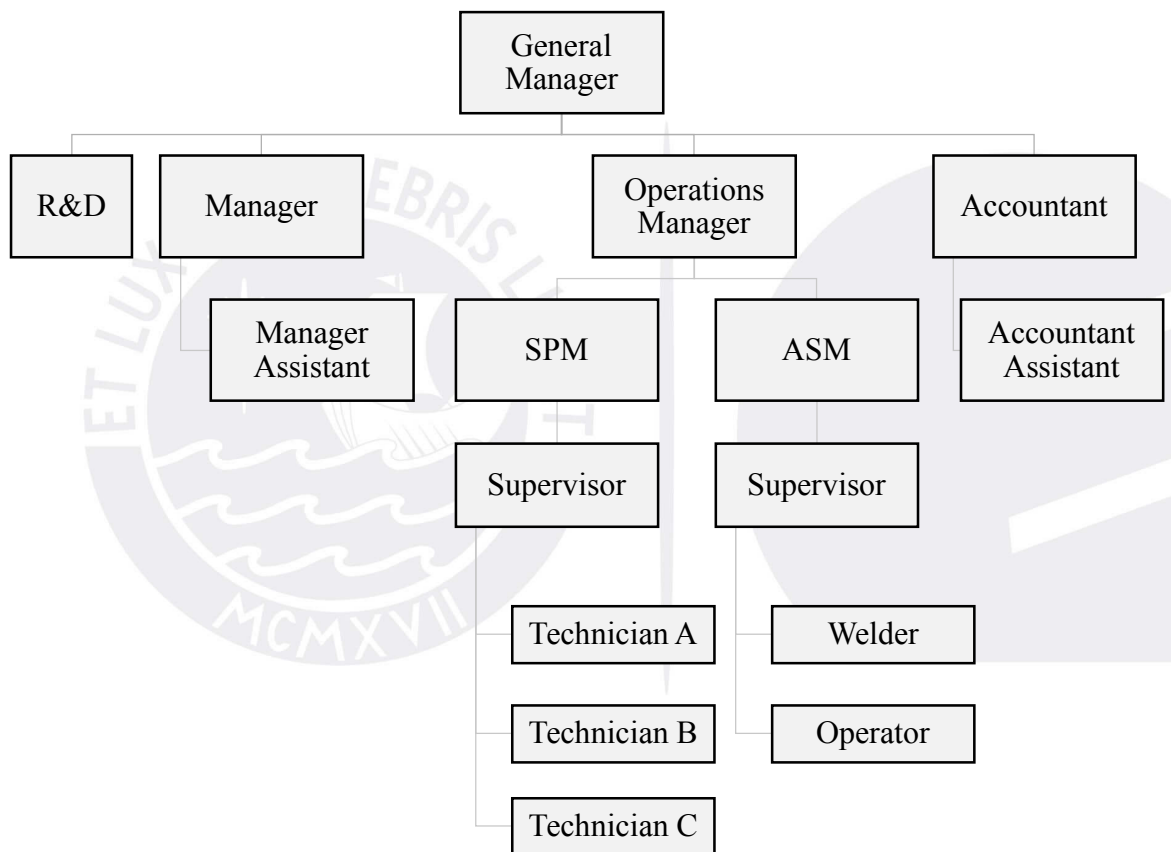


Figure 14. Tecport' organizational structure expectation. Adapted from "Manual de Organización y Funciones Equiports", by Tecport Latin America, 2016, p. 3.

4.4.2 Cross-cultural functional teams and knowledge transfer

According to Dobrai, Farkas, Zsuzsa, & Póor (2012), knowledge transfer faces critical factors when organizations operate internationally. These factors are: (a) the physical distance between the involved units, (b) the spread of the organizational culture, (c)

communication processes, (d) different language skills, (e) cultural issues, (f) time zones, (g) political issues, etc. For some companies, the biggest challenge is to overcome this factors. In the case of Tecport, the situation may be easier, due that the subsidiaries are in similar time zones, and mainly because there is a reduced human capital, which allows empowerment and faster communication processes.

Before, there was a tendency of just transferring knowledge from the parent company or office to the subsidiaries. Every time, there is a growing importance in transferring of knowledge between subsidiaries. A lot of knowledge can be created and stored when having these cross-branches interactions. The team is suggesting that Tecport could add value while transferring knowledge if it creates more active interactions within its cross-cultural functional teams (Figure 15). For instance, promoting meetings and more fluent communication among the OMs of the three subsidiaries, and why not, if possible, involving its similars in the dealers.

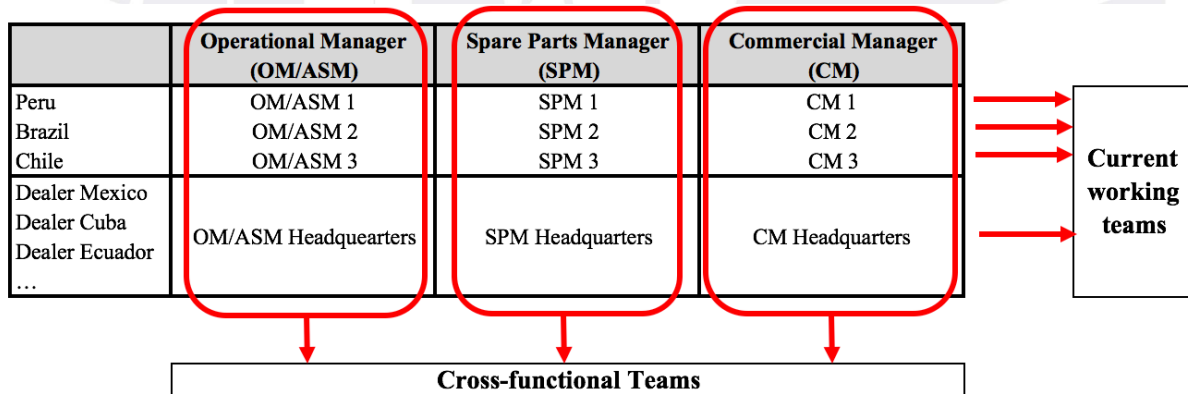


Figure 15. Cross-cultural functional teams.

4.5 Analysis of Corporate Culture

There is a lack of unified integrated corporate culture within Tecport. As Mr. Alejandro expected, Tecport Latin American would be the market leader for port equipment and container ships rental service in the region. Providing global quality, which comes from reputed manufacturers. As the rapid growth and expansion of the company, a more sufficient

and closer organization communication is required, namely, it is essential for Tecport to build a unified culture within the whole corporation, which should be fully carried out by all branches of Tecport Latin American.

A high-trusted and positive culture can help the company to build commitment amongst employees as well as stimulate productivity and creativity. Physical, behavioral and verbal symbols should be considered to create the foundation, which influences the way employees feel about their company and the way it operates (Brady, & Lowell, 2014).

Considering physical symbols, as visiting Tecport company's workplace and talking with several employees, it is easy to feel a relaxing but orderly working atmosphere in office, both physically and psychologically. The employees dress casually, communicate lively without unnaturally quiet. The material objects, like documents and furnishings, are well-maintained, which shows an orderly routine within the company. The lion in Mr. Alejandro's office also shows a friendly non-authoritative leadership of top management level.

Considering behavioral symbols as a significant aspect of corporate culture, there are few policy-driven programs developed in the Tecport Company. According to Mr. Alejandro, Tecport has a program of economic incentives based on the achievement of the projected goals. There is an annual evaluation about the performance of each employee. There is also an emphasis in security and hygiene in the field is also measured during performance planning and evaluation process. These rewards and punishments programs developed a motivation sense of culture. However, the comprehensive company tradition is not built up yet, and there is no evidence showing customized behavioral symbols amongst Tecport branches. The ceremonies program is also a cohesion-driven aspect of group culture that is worth being developed.

Considering the verbal symbols, the communication style within the Tecport office is quite harmonious and easygoing, which has been shown from the way that Mr. Alejandro

talks with his employees. Also, in view of the small scale of the organization structure, the approval process is clearly authorized by Alejandro and his brother. Furthermore, Tecport as an international company providing specialized equipment solutions, applying the common language consisting of technical terminologies as well as English would help the company boost efficiency and knowledge transfer. According to Welch, language is inherent in a specific culture and also an embodiment of it. It influences the way people behave and how people perceive things. In order to appreciate the role of language in knowledge transfer, it is useful to build up a unified corporate common language, to implement a communication model within the whole corporation (Welch, & Welch, 2008). Apparently, there is a lack of efficient knowledge transfer amongst different divisions and different branches. In Tecport, each performs its own functions, and the knowledge is indigestible until it was explained by sectorial report, even though the knowledge was transparent throughout the company.

4.6 Analysis of Previous Attempts

Tecport has had some previous attempts of transferring and managing information and knowledge. Equiports, which has been operating the longest, has implemented two systems: the ERP System Microsoft Dynamics, and a blog-forum. The latest attempt of the group of compiling and transferring information is the Guarantees Database, created by the Brazilian branch.

4.6.1 ERP system

The ERP systems is a consolidated software solution. This package strengthens the smooth integration of the all knowledge flowing through the firm such as customer data, inventory, financial and accounting information and logistics (Wang. A, 2005, p. 5). ERP application is a tedious and intricate process and like many companies, Tecport has found it difficult to implement. One of the initial issues Tecport ran into with the systems is that key employees did not utilize this system. So far the ERP has been used for placing Service

Orders, accounting, invoicing, but almost no use of the HR module. Rather, Tecport's team works on personal excel folders, mainly because they were able to personally customize and coordinate information as they desired. However, in the consultant perspective, it is seen that the lack of research before the purchase of the system, improper training, an unclear idea of the essence and usage of the system from employees' point of view and the lack of proper IT infrastructure led to employees boycotting the system.

Furthermore, although Tecport invested USD 30,000 into this system, it cannot be transferred to other subsidiaries. In essence Brazil, Chile, Peru and future ventures will have to adopt a separate system that can be used to establish an integrated knowledge transfer system. It is assessed that the General Manager must assist employees in understanding the impact of this system as it helps the firm with transparency, in decision making and overall productivity assuming Tecport's plans to continue utilizing the ERP system.

4.6.2 Blog-forum

Tecport's continuous attempt to transfer knowledge in an inexpensive way led to the implementation of blogging. The company used this system in creating an integrated communication mechanism for all employees, however, the scheme quickly reached its maximum capability as additional services such as uploading spreadsheets and other documents were impossible to procure without additional costs, especially in man-hours.

This current approach being used is insufficient for the needs of Tecport. Security issues, inability to control haphazard system upgrades, limitations of knowledge transfer networks and concerns from backup possibilities are vital reasoning this method is ill fitting for knowledge integration.

4.7 Conclusions

Based on a comparative analysis of Peruvian and Chilean market in the port Industry, the consulting team found that the infrastructural system in Chile is superior to that of Peru.

Along with the better ranking of doing business in South America, there is truly an opportunity for Tecport to develop their market share by entering Chile market. This implies that the first ideas of transferring knowledge to Chile from Peru only, were not completely accurate, as there appears to be a large room for transferring knowledge from the neighbor country into the Peruvian offices and headquarter of Tecport LA. This finding changes the client's perception for knowledge transfer. Relating to the literature review, processes and technologies can be acquired from Chile, as more explicit knowledge, while Chile can be fed by the Peruvian and Brazilian subsidiaries in terms of tacit knowledge.

Furthermore, the possible cultural impacts have been identified through an in-depth analysis and comparison among Latin American countries. As Tecport Chile is going to basically follow the example of Tecport LA's headquarter organization structure, the current organizational structure and their expectations need to be discussed. Coupled with the cross-cultural functional teams and the knowledge transfer process Tecport current has, it was further discussed the company's culture, which has not been fully established but somehow has had an embryonic form. As the literature review showed, knowledge must be categorized and employees must be involved since the implementation stage of the KM, in order to pay close attention of the consequences of every decision regarding cultural differences among the three countries.

The overall analysis shows plenty of room to improve, both from managerial applicability and the implementation point of view. Considering the knowledge transfer process, Tecport's previous attempts were analyzed including ERP System and Blog-forum. These were positive strategies for the corporation. However, the impact they had has not been appreciated due to its lack of implementation. These experiences combined with the literature review focused in problem-solving, can be enlightening for not repeating the same practices applied before, that led to an incomplete implementation of new practices. For

instance, the involvement of the employees (specially the users) since the design of the solution. Also, the measurement of performances allow a concrete follow-up, targeted motivation and incentives.



Chapter V: Root-Cause Analysis of the Problem

5.1 Identified causes

A variety of causes were identified in terms of assessing the main problem at hand: lack of efficient corporate knowledge transfer across the Group. By knowledge it is meant: technical knowledge, knowledge of providing services to clients, culture and style, and knowledge regarding decision-making processes. The list of causes are presented above in Table 5. Ultimately, the root-causes for how conveying knowledge to the new team in Chile would pose challenges for Tecport reduced to four main points: (a) reduced amount of human capital, (b) lack of information systems, (c) concentration of knowledge in few people, and (d) timing of opening the Chile office. To schematized what has been explained, Figure 16 shows the Fishbone diagram of the main problem in analysis, highlighting the main causes identified and its root causes.

Table 5
List of Identified Causes for the Main Problem

List of Causes	
1	Reduced amount of human capital.
2	Limited necessary amount of positions available.
3	No need to invest.
4	Lack of information systems.
5	No prediction that knowledge transfer would be a problem with international expansion.
6	Knowledge transfer was not a major concern in the past.
7	Concentration of knowledge in few people.
8	Not taken the time to transfer/share the knowledge and company structure.
9	No need to transfer the knowledge in the past.
10	Timing of opening the new office in Chile.
11	Lack of experience in dealing with Chilean labour force.
12	The OM for the Chilean office has already been chosen.

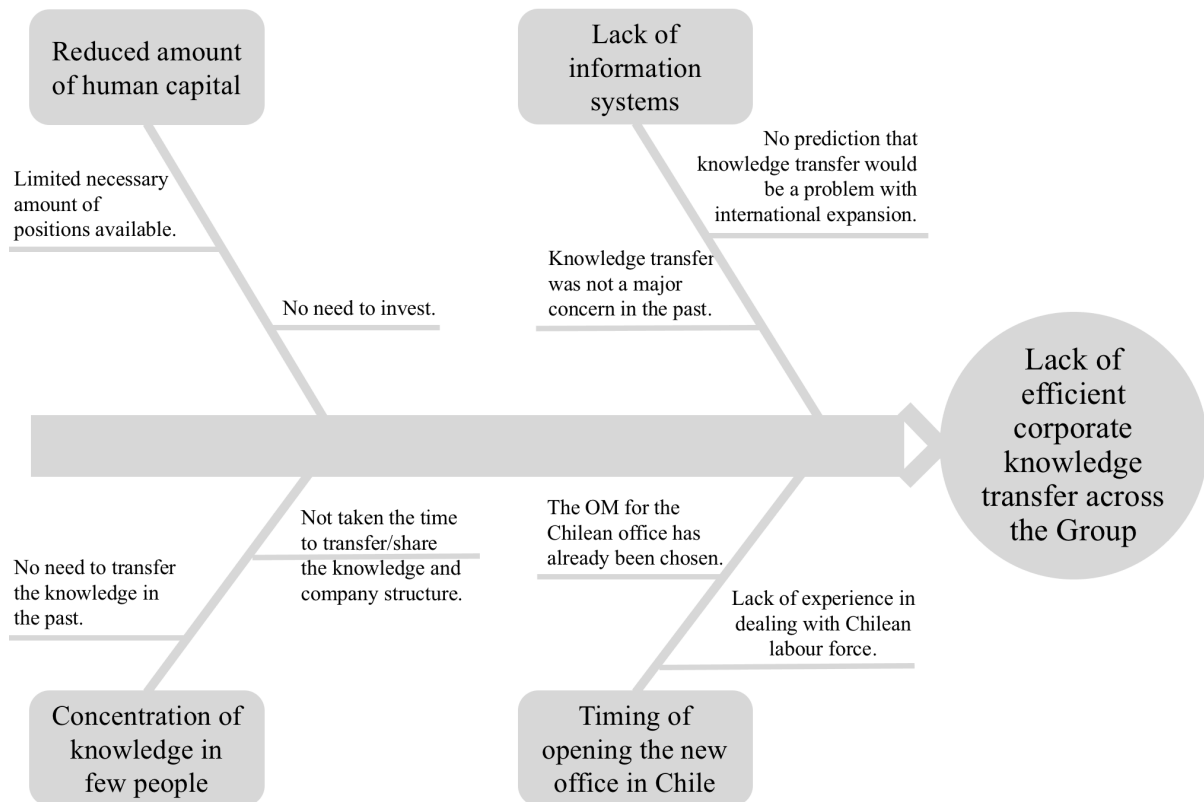


Figure 16. Fishbone diagram of the lack of efficient corporate knowledge transfer across Tecport Latin America Group.

5.2 Root-Causes Analysis of the Problem

5.2.1 Reduced amount of human capital

Human capital is essential to the widespread transfer of knowledge. The term refers to the stock of knowledge, talents, and skills possessed by the individuals in the company. An insufficient amount of human capital is a root-cause of the problem because it is a key component in the transferring of knowledge. Certainly, knowledge can be transferred via books, manuals, or online databases, but the heart of knowledge lies in people. In order to effectively transfer knowledge, there must exist an appropriate level of human capital.

Sub-cause 1: Limited necessary amount of positions available. Presently, as well as in the past, there exists a very limited amount of necessary positions at Tecport. In order to maintain operations, the company does not require a large team which is why the current number of employees is working well for the company. The Operations Manager/After-Sales

Manager (OM/ASM) as well as the Spare Parts Manager (SPM) manage the bulk of the business, while the Administration Manager provides support and administrative assistance. Other than these three key players, there has never been a need to hire more staff or create new positions within the company.

Sub-cause 2: No need to invest. Considering the age and company position, this subcase is justified by three issues: (a) Tecport is a young company and has been able to grow with the number of current employees, which is why it might have seemed unnecessary to invest in hiring more employees. (b) As a young company, it would not make sense to invest highly in staff. It would only be logical to invest in just the right amount of human capital to effectively operate in Peru and Brazil. However, as international expansion continues, it becomes apparent that human capital is necessary in the transfer of knowledge. And (c) considering the position of the company, prior to international expansion into Chile, there was no need to invest in human capital. Since business operated fluently and there was no need to transfer knowledge to a new office, it wouldn't have been logical to invest in human capital.

5.2.2 Lack of information systems

Currently, Tecport manages much of its information in either physical or virtual forms of documentation (in MS Office). Much of the company's documents are printed and stored in binders or kept in excel and word documents. Additionally, according to Alejandro Sarria, the Enterprise Resource Planning software (ERP) for Equipos Portuarios is being utilized to manage Tecport information. This software, which manages information such as finance, accounting, and human resources, is unable to solve the problem of transferring knowledge however. In order to effectively solve the problem of transferring knowledge to the new office in Chile, there needs to be some form of information management system that enables new employees to access and learn applicable knowledge.

Sub-cause 1: No prediction that knowledge transfer would be a problem with international expansion. With their initial goal of starting a new business and attaining clients in mind, the Sarria brothers did not predict that the transferring of knowledge would become a problem. Besides, Tecport LA was originally concerned with starting off as a reputable company that offers quality products and superior customer support. With initial challenges and goals, there was little to no consideration of the implications of managing or mismanaging information.

Sub-cause 2: Knowledge transfer was not a major concern in the past. Information management in the past did not involve the notion of transferring the knowledge outside of the office in Lima. It is for this reason that a system that would support efficient knowledge transfer was not put in place. As Tecport expanded into Brazil, it became apparent that knowledge had to be transferred in some form. Due to this fact, one of the brothers moved to Brazil to oversee business and transfer his knowledge of operations and customer support. Now that Tecport is opening a third office in Chile, it is obvious that the two brothers need at least one other person who possesses a similar amount of knowledge and is capable of successfully operating the business.

5.2.3 Concentration of knowledge in few people

The Sarria brothers, who founded Equipos Portuarios and Tecport, hold the keys to the companies in terms of knowledge (technical, service and decision-making). Certainly, the OM/ASM and the SPM at Tecport Peru possess the required knowledge to fulfil their duties (perhaps they know a small amount about other role requirements) but they do not possess the knowledge of all the ins and outs of the company. The only individuals who possess all of the knowledge, and thus the only ones who are capable of overseeing the transferring of knowledge, are the Sarria brothers.

Sub-cause 1: Not taken the time to transfer/share the knowledge and company structure. Alejandro and Cesar have been so occupied with operations and expansion that they have not had the time to find a third person to share the knowledge with. Also, the brothers have transferred limited amounts of knowledge to each staff member, enabling each to perform specific tasks. If international expansion is to continue and the brothers wish to have Tecport's structure and culture to strengthen and persist, it is crucial that they take the time to share their aims for and knowledge of the company to at least one other person.

Sub-cause 2: No need to transfer the knowledge in the past. Like sub-cause 2 in section 4.1.2.2 regarding information management, past performance dictated no need for sharing all of the knowledge with others. Each employee was hired to do his or her job and there was no need to teach them everything about the company's operations. In the past, Alejandro and Cesar's knowledge was sufficient to run the company successfully. Now that there will be three locations, operations have become more challenging since the two brothers cannot be in all three places at one time. In order to solve this problem, it is essential that at least one more individual possess the knowledge that Alejandro and Cesar do.

5.2.4 Timing of opening the new office in Chile

Tecport plans to open its office in Valparaiso, Chile by mid-August and so it is imperative that the new employees are well-trained and that necessary knowledge has been transferred. If the new office is to mirror the office in Peru, it is vital that the new OM/ASM and SPM are well-informed and capable of Tecport's operations, methods, and culture.

Sub-cause 1: Tecport wants to penetrate a new market at a specific time. One of the main reasons for wanting to open an office in Chile at this time is owing to the fact that the Sarria brothers believe that the market (which is not doing well at this time) will pick up. Tecport LA, wanting to continue its expansion in South America, is hoping to capture the Chilean market and the most opportune moment. Since the owners of the company believe

that the Chilean market will be a successful investment that will profit in the near future, they wish to begin operations as soon as possible.

Sub-cause 2: Operations Manager for Chile has already been selected. According to Alejandro Sarria, Tecport has already selected someone based in Chile to assume the role of OM. This person has an extensive background in the industry and is ready to begin working for Tecport Chile. The OM is responsible for the leading operations and is therefore at the top of the hierarchical structure. Since this position has been filled, which is arguably the most important position for Tecport Chile, it is reasonable to want to open the new office as of mid-August.

5.3 Justification for Root-Cause Analysis

5.3.1 Reduced amount of human capital

The skills and knowledge that individuals acquire must be considered as a form of capital by organizations. Owing to this, company's must wisely invest in people who bring skill, talent, and knowledge to the organization. At the onset of his article, *Investment in Human Capital*, Theodore W. Schultz (1961) introduced a significant point that supports this notion. He explains, "Although it is obvious that people acquire useful skills and knowledge, it is not obvious that these skills and knowledge are a form of capital, that this capital is in substantial part a product of deliberate investment, that it has grown in Western societies at a much faster rate than conventional (nonhuman) capital, and that its growth may well be the most distinctive feature of the economic system. It has been widely observed that increases in national output have been large compared with the increases of land, man-hours, and physical reproducible capital. Investment in human capital is probably the major explanation for this difference" (Schultz, 1961). Schultz elucidates that not all organizations appreciate the importance that the skills and knowledge possessed by people play in influencing economic performance. The relationship between the knowledge and skills held by employees and

business efficiency and success is one of utmost importance. Therefore, it is crucial to examine the current situation regarding human capital in companies who are succeeding and or failing. If how human capital contributes to the successes or the failures of an organization can be observed, conclusions can be drawn regarding the efficacy of people and how their knowledge and skill contributes to operating a successful business.

An organization that is looking to expand internationally, such as Tecport, must consider many variables that would affect the success of the international expansion. One key variable to be considered is whether or not the organization possesses an appropriate amount of human capital. As described in section 2, Tecport employs an Operation Manager/After-Sales Manager (OM/ASM), a Spare Parts Manager (SPM), and an Administration Manager. This level of human capital is planned to be mirrored by the Chilean office. Owing to the fact that the Tecport Peru team is limited to these positions, the important problem of transferring knowledge arises. When opening a new office in Chile and wanting to transfer knowledge to the new employees, it is necessary for Tecport to have in place some kind of system that will support the transfer. Since the transfer of knowledge to the Chile office is the problem at hand, it is clear that such a system is nonexistent.

Typically, a system that supports the transfer of knowledge involves individuals who provide on-site training and supervision to new staff. Tecport, however, lacks sufficient human capital that could easily support such a system. Currently, if on-site training were to occur, the current OM/ASM and SPM would have to travel to Chile to provide training at the new office or the new employees in the Chilean office would have to travel to Peru to receive the training at the Lima office. Both situations present pros and cons. In the first case, where the OM/ASM and the SPM from the Peruvian office would travel to Chile to provide on-site training, main pro would be that the new employees could learn in their home environment whilst conducting business in Chile. The con, on the other hand, would be that the OM/ASM

and the SPM from Peru would not be in Lima to handle their everyday tasks. They would be busy training the new employees in Chile and therefore, would not be able to handle their usual workload. In the other scenario, where the new employees from Chile were to travel to Peru to receive training, the major pros would be: (a) that these individuals could witness first-hand how business is conducted at Tecport; and (b) that the OM/ASM and the SPM in the Lima office would not leave the country and thus be able to continue business as per usual. A significant con, on the other hand, reflects the negative in the first scenario. If the new OM/ASM and the SPM were to travel to Lima to receive training, as opposed to having the Peru staff travel to Chile to provide training, it is very probable that Chilean business would be delayed until the new employees were fully trained and ready to commence operations in Chile. The new staff would likely be observing and potentially supporting operations in Peru. This could be viewed as a pro, however, it delays the commencement of business in Chile. If the Peruvian team were to travel to Chile, however, it is likely that they would be training and supporting the new employees in operations in Chile, which would support the overall goal of conducting business in the Chilean market.

The growth of any organization characteristically necessitates a growth in human capital, which is why there is a need for an improvement in human capital at Tecport. Tecport has managed to grow with the current limited amount of available positions, however, it will have to invest in people as it expands internationally. If knowledge is to be transferred effectively, there needs to be some sort of system that enables a simple and cost-effective way of doing so. In terms of human capital, there should be enough individuals who possess the knowledge and skills to transfer the knowledge without having to disrupt business operations in one location or another. Due to the age of the company and its recent past position, it is logical that Tecport hasn't invested in human capital. However, as the organization is steadily growing, it is crucial that it begins to consider investing in human

capital. Since transferring knowledge requires people and the knowledge and skills they possess, it is crucial that Tecport consider investing human capital.

5.3.2 Lack of information systems

Improving information management methods should be an important focus for any organization. They act to improve the efficiency of business processes and help organizations maintain and develop knowledge. Typically, ‘information management’ means utilizing new technology solutions, such as content or document management systems, data warehousing or portal applications. “Effective information management is not easy. There are systems to integrate, a huge range of business needs to meet, and complex organizational (and cultural) issues to address” (Robertson, n.d.). The current information management situation at Tecport does not support a system where some format of information management can foster knowledge transfer. At this time, the only virtual information that can be shared (in an attempt to transfer knowledge) includes MS Office documents containing data such as past business transactions or accounting information. Tecport’s ERP (initially set up for Equipos Portuarios that currently also manages Tecport information) is certainly an information management system, however it is not going to be capable of satisfying the requirements of transferring knowledge to new staff in Chile. It may help staff in accessing specific information such as financial records, but it will not be able to transfer types of knowledge such as technical skills and an awareness of organizational culture. Upon founding Tecport, the initial goal for the Sarria brothers was to gain clientele and grow a business in the port industry. At the onset, the notion of transferring knowledge wasn’t a concern as international expansion was not at the forefront of conducting business. As the company grew over time and the possibility of international expansion became a reality, it became apparent that new employees had to be trained and know specific information that would reflect Tecport’s way of doing business (in operations and in culture).

5.3.3 Concentration of knowledge in few people

In order to effectively transfer knowledge, it is optimal for an organization to have a multitude of skilled individuals who are capable of transferring the knowledge. In the case of Tecport, only Alejandro and Cesar Sarria hold the true keys to Tecport knowledge. As mentioned in section 4.3, it is without a doubt that the current staff in the Peru office hold certain valuable knowledge pertinent to their roles within the company. If perhaps the Sarria brothers left the company in the hands of these individuals, however, there would be no way of transferring all of the knowledge within the company. These individuals would not be capable of transferring a complete set of knowledge because they do not possess the ultimate knowledge that the Sarria brothers do.

Alejandro and Cesar have not taken the time to find an individual and teach/mentor them in such a way that would enable them to run the company as if they were a third Sarria brother. It is necessary that the knowledge possessed by Alejandro, in regards to managing Tecport Peru, is transferred to another person who will be able to effectively manage Tecport Chile. Past performance did not require the need for sharing every detail of the ins and outs of the company. As discussed in section 4.3.2, each employee was hired in the past to perform specific tasks within the company and this meant that there was no sense in transferring the required knowledge to operate the company. Now that Tecport is moving outside of Peru and Brazil (where Alejandro and Cesar are located) it is becoming necessary to have a third person who possesses an equivalent amount of knowledge. If international expansion is to continue and Tecport wishes to operate successfully in Chile, it is of the utmost importance that knowledge is effectively transferred to the right individual(s) in the new office.

5.3.4 Timing of opening the new office in Chile

If Tecport's plan to open the new office in Chile was set for one year from now, timing (in terms of training and knowledge transfer) would be far less of a concern. Since the office will commence operations in a few weeks, timing is a significant root cause of transferring knowledge. Moreover, timing is vital to the company's aims to penetrate the Chilean market. As discussed with Mr. Sarria, Tecport LA predicts that the Chilean market, which is not doing very well at the moment, will significantly pick up in the near future and present profitable opportunities. In order to open the office in mid-August, the company must ensure that knowledge is transferred to the new staff in Chile; or at least enough knowledge to operate effectively. Transferring all of the necessary knowledge will take time and so it is essential that a sufficient amount of knowledge is transferred in order to conduct business and gain/maintain clients within the new market.

5.4 Conclusions

The 12 causes analyzed in this chapter are all internal issues, meaning that they can all be mitigated by effective decision-making in the Tecport LA's top and middle management. This scenario makes it easier to decide the best solution for the problem in hand. The aspects considered for each causal factor were both its recurrence and certainty. This interpretation allows to realize that some causes need a change of paradigm and change of mind in the people of the organization, for instance, the just appearing need of efficient corporate knowledge transfer or the unequal concentration of the knowledge. Also, the certainty of the causes revealed some other issues in the organization that were not taken into consideration, for instance, the fact that the OM for the Chilean office has already been chosen. This issue may be thought of easy resolution but actually this person is the card of presentation in this new country, and there is not guarantee that he will align with the changes that will be proposed in this thesis.

Some other causes do not seem to be real problems for the organization, but for this problem in hand. For instance, the insufficient amount of human capital or the opening of the new office in the very near future. However, these two affect Tecport LA's competitiveness among its competitors in the industry. For this reason, the root-cause analysis is an appropriate first step for the problem solving, as it allows to frame the problem in dimensions, which in this case are reduced to four: insufficient amount of human capital, lack of information management, unequal concentration of knowledge and the too near opening of the office in Chile. The root-cause analysis led to the accurate identification of primary causes rather than the symptoms, which are not more than results of these roots.

It was also specially interesting to analyze how these four main causes affected the dimensions of the problem in hand: existence, location, ownership, magnitude and time perspective. For instance, Tecport's new opening will affect the time perspective of the knowledge management. Also, the ownership perception of the problem changed when the causes of concentration of knowledge were analyzed.

Chapter VI: Assessed Solution Alternatives

6.1 Individual Analysis of Alternatives

With a firm understanding of the root cause of the difficulty in transferring Tecport's knowledge among its offices, an assessment of solutions was made. Many factors had to be considered in the decision making process of developing these possible solutions. These factors included the timeframe in which this project could be completed and yield results, a feasible scope of the project, the client's preferences and lastly, the overall advantages of each possible solution. The team also considered the learning curve Tecport had when implementing their two previous attempts: the ERP system and the blog-forum.

In terms of a timeframe, a solution had to be developed which would be able to take effect within the six weeks of the proposed consulting project. As there is this time constraint on the given project, this also required that the scope of the solution be narrowed to one which would be manageable within this time. Solutions that met these criteria were then assessed in terms of their characteristics, benefits, and potential problems and risks and were proposed to the client.

6.1.1 Direct corporate knowledge transfer moving human capital

The first solution involves moving either the Chilean OM to headquarters in Peru to be trained and learn the corporate culture or to bring Alejandro to Chile to oversee operations and directly bring knowledge there. This transfer of the Chilean OM will be temporary and only until operations must begin in Chile when he will return and pass on what he has learned at headquarters. In the case of moving Alejandro to Chile, the longer he resides in Chile, the more effective transfer of knowledge would be.

Benefits. By directly transferring knowledge through transferring key players, this will allow the Chilean OM to learn firsthand both technical knowledge as well as the corporate culture of the company. Additionally, it addresses the issue of distance between

involved units, a key factor in knowledge transfer as explained by Farkas (2012). A benefit of bringing the Chilean OM to headquarters is that this would require a minimal expenditures of resources. Because the staff at Tecport is limited, as well as much of the work not being able to be done from abroad (visiting clients etc.) sending human capital away from their work to train at the Chilean office would require much of the operations in Peru to be put on hold. If the Chilean OM comes to Peru, however, operations can continue as usual while the OM monitors and learns from watching and taking away much less time from employees from their own work. As for benefits in Alejandro moving to Chile, this would ensure that knowledge transfer and company culture is being maintained after the initial training phase.

Potential problems. The first potential problem of bringing the Chilean OM to Peru is that once he gains the knowledge from headquarters, it is uncertain how effectively he will be able to implement this knowledge in Chile. This would require a method to continuously monitor the Chilean office to ensure these practices are indeed being carried out correctly. Another problem could be that the turnover of personnel is uncertain in Chile, so this direct transfer may need to be repeated every time some new position is filled. A problem of sending Alejandro to Chile for an extended period of time on the other hand raises the issue that this move requires a fair amount of commitment.

6.1.2 Develop a manual of corporate knowledge

The next possible solution is to develop a manual which contains all information pertaining to operations and procedures at Tecport. This manual would provide detailed information on the roles and responsibilities of each position and technical information on servicing. It is pertinent to remember that Tecport already has a Manual of Organization and Functions, to guideline the functions of each key position in the offices which is not very effective. The purpose of this manual will be to ensure that there is a corporate structure that can be imitated and maintained in a standardized way across all of Tecport's offices.

Benefits. This manual has the benefit that all information is provided in a single document that can be accessed by any employee seeking certain knowledge. With this method of transferring knowledge and developing structure, Tecport as a group can operate cohesively and in a standardized manner. Also, by having this manual, again the issue of limited human capital can be avoided. This solution is also one of the less costly options to implement.

Potential problems. A foreseen issue with using this manual is the effectiveness of it to transfer knowledge relating to corporate culture. As corporate culture is an abstract, often indescribable set of practices and values at a firm and thus would be difficult to write and implement through a manual. These practices also require time to become a norm in the company and a manual will not likely suffice in making this happen.

Another potential problem of using this manual is that it may not be as effective in transferring knowledge as through person to person interaction. Lastly, there has already been a similar manual developed for Equiports which has been observed to not be an effective tool and the value added through creating another similar to this does not seem worthwhile.

6.1.3 Compile all technical information in the cloud

This solution will assist with the transfer of the vast specific technical knowledge required with the servicing. This solution involves compiling details, specifications, drawings and diagrams, service processes of all the machinery from both CVS Ferrari as well as the numerous spare parts companies' products Tecport sells.

Benefits. As there is a large amount of technical knowledge that new employees will need to gain, having all this information compiled and easily available will be useful in the transfer of this knowledge.

Potential problems. The problem of this solution is that it focuses only on the transfer of technical knowledge and not company culture. As company culture is a significant

part of the knowledge that is to be transferred yet difficult to do so through writing, a large portion of the company's knowledge will not be transferred. Additionally, as this compilation of information is not interactive with the user, when further clarification is required on certain aspects of it, there will still be a need to seek assistance from another person who has this knowledge.

6.1.4 Construct a client service staff (CSS) network

Constructing a CSS Network may also be a possible solution that would not only transfer knowledge across the company but also add value to the clients. This Client Service Staff Network has previously been attempted to start up by Tecport through a blog/forum that they created but has not been fully developed. By improving and better implementing this system, however, it would be a way for Tecport to connect better with its employees. This forum would be a platform where employees and technicians can post questions and find answers from other more experienced employees.

Benefits. Constructing this CSS Network has the benefit of interaction between the more experienced employees with the newer hires in the other offices. Additionally, knowledge can be transferred without the barrier of distance as this platform is online and can be accessed from anywhere.

Potential problems. The first problem is similar to the last solution where this platform is great for technical knowledge transfer but will not be as effective for the transfer of more abstract knowledge like that related to company culture. Another potential problem is how open current employees will be to adopting such a network. To the more experienced staff or knowledge "transferers," constantly updating this forum may be a burden and extra work that they do not feel obliged to do.

6.1.5 Develop a virtual platform to interact with clients

This platform would serve as an open service status reporting system. The initial idea would be to design a friendly web page where clients could place their requirements -of any kind- and so the whole service could be placed in a chat-type format. This idea was inspired on the Sistema de Atención al Alumno (SIAL) that Centrum is implementing. The consulting team met the key people in charge of the SIAL functioning: the director of Centrum Online - professor Waldemar Alegría-, IT support -Rolando Guerra-, and the SIAL administrator – Sergio Aguirre. Centrum started using this platform as a ticketer, meaning a virtual ticket provider, for every service required by the students of the School of Business. It contained the most frequent questions the students had, and had pre-set answers for them, mainly by sending them the norms or procedures. Afterwards, they realized students were not comfortable with the service, and they decided to do it friendlier, by directing the questions and requests directly to the responsible of solving it.

This solution was thought after doing a SWOT strategy analysis. The key strength that led to this solution is that Tecport's differentiation relies on the quality of its service. The most important opportunity within the Group is that it is entering into a new market, so Tecport can show and be known from the beginning as a strong brand, with the image of a Latin American Group serving their clients on a standardized platform in the whole region. Also, an opportunity that would be worth it take into account is the use of the ERP and take further advantage of this past investment of around USD 30,000. However, the main threat is the uncertainty of the Chilean market and its way of doing business in the port industry. Furthermore, Tecport's weakness associated to this strategy would be the limited human resources, which respond to more than one position in some cases.

Characteristics. From the customers' perspective, the experience would be as follows: (a) Clients will be assigned a username and a password; (b) Clients will place their

requirements and typify them in one of the five services Tecport can offer (sale of machines, rent of machines, maintenance, sale of spare parts, and technical inquiry). (c) Clients can do a follow up of their requirements, due that the whole conversation will be in the same chat. (d) At the end of the service, clients can rate it and leave a review.

From Tecport's perspective, the knowledge transfer process will be enhanced as follows: (a) A new service will be opened and assigned to one person in a certain branch, for instance, the OM in Chile will attend a maintenance requirement. (b) The rest of OMs, as well as the General Management, will be aware of the existence of this requirement. Whenever the Chilean OM has a doubt of how to solve the problem, he can receive help from his peers. Also, the General Manager (or the future Quality Controller) can verify if the service has been hold in a convenient way. (c) The whole service will pass by certain stages, like: requirement, quotation, negotiation, import, arrival of machinery, installation, client's conformity, guarantee, etc. (d) The whole service history can be saved as a model for a specific type of service. (e) New employees or old ones can learn from past services experiences, inconvenience, results, good practices, and so on. (f) The general management would be able to visualize a dashboard in real time with the outcomes or KPIs of this platform. (g) Tecport would be able to act against the rating of the clients, either installing higher levels of quality or correcting the non-conformities.

The options Tecport has for this solution are of a wide range, it would depend mainly on the initial investment. As Tecport has expressed that they would like a cheap solution, the platform suggested would be:

- CENDEX, which is an internal and external ticket-type service. It cannot be totally customized, but it follows some patterns. There is a monthly fee for the service, which can go from USD 50.00.

- GLPI (Gestión Libre de Parque Informático or Free Management of the Informatic Park), which is an "Information Resource-Manager with an additional Administration-Interface" (GLPI, n.d.). This platform can be used to build up a database to improve processes in the daily life of the executives. For instance, an inventory of all technical resources, job-tracking-system, mail-notification, corporate network-topology, history storage, dynamic connections, etc. The platform can be customized. It needs a programmer and developer. There is no fee. It requires a middle-experienced informatics developer. (GLPI, n.d.).
- A Centrum SIAL's type. It would cost approximately PEN 10,000 for implementing a satellite to the current ERP used in Peru.
- A service bought from Amazon which would host the virtual platform, with an accessible monthly fee.

Benefits. The CSS network has plenty of benefits, which are listed bellow:

- The platform will accelerate the learning process in the company. As it is an open source, collaborators from the different branches can help assist in the problem solving.
- The use of this platform will create a database with each service and interaction with the client. This tool will allow new employees or even the old ones to effectively provide services based on previous own or others' similar cases.
- This system can be integrated with the ERP Equiports already manages.
- The General Management will be able to do a follow up on the quality of the performance through some indicators (KPIs): number of services opened in the week, number of services completed, time of response, customer satisfaction, weekly revenues, etc.
- Transparency in the operations. Due that personnel from all the branches will be able to see others' performance in real life, this characteristic should enhance the quality of the service provided.

- New personnel will be able to learn faster through real situations. For instance, the new Chilean OM will learn from his similars in the Brazilian and Peruvian branches in how clients' requirements must be solved to keep the same level of quality and transmitting the same corporate culture.
- The platform will develop stronger customer relationships because customers would be able to monitor the progress of their requirements.
- New customers will identify Tecport LA as a well-positioned global enterprise. Especially the customers in Chile will perceive a strong image of this Group entering its market.

Possible problems. The possible problems Tecport LA may face are the following if the CSS network is implemented:

- Current clients need time to adopt to this system, and many of them would reject to do it. As a solution to this problem, one person in Tecport LA would place the services' requirements for the first times, and notify the clients, until they alone realize about the benefits of this platform.
- Some cultural conflicts may arise between the Peruvian, Brazilian, and Chilean personnel, due to that this openness of information may be uncomfortable for some, and this may affect the willingness to report.
- Tecport LA's employees may not understand the benefits of the system, and feel this represent an extra job for them to change their way of working.
- Employees' stress due to the feeling of pressure of constantly being observed or monitored.
- Some cultures may feel rejection to share knowledge or some sense of arrogance in not learning from other countries, due to their perceived superiority.

6.1.6 Mapping of processes of the three key operational positions and define KPIs

Due that Tecport differentiation lays in the quality of its service provided, and not much in the good supplied, as a consulting team, and in agreement with Tecport, there are three key positions in contact with the client: Operations Management (OM), Spare Parts Management (SPM), and Commercial Management (CM). This possible solution proposed would serve as a parameter to follow in any of the branches, including the subsidiaries. If a map of processes is well designed for each of the three positions, it will be easier to scheme databases that could allow to measure some KPIs for top level decision-making.

Benefits. The first benefit of this solution would be that it serves as the limits in which a certain position can perform. There should be small room to shade the quality of the service, so Tecport LA could start constructing a corporate quality and culture. Besides, it will allow to work under standardize formats, which can be understood by anyone within the organization. Finally, it will allow to measure KPIs and provide a tool for the General Management to make decisions based on records of indicators.

Possible problems. A possible disadvantage of this solution would be that it constraints individual innovation at each one's job. This problem could be mitigated by having at least three meetings to decide the final shape of each process. If any improvement arises after the implementation stage, there could be a procedure to implement it in an scheduled whole day with the collaboration of all the personnel involved in the change. Another problem could be that the personnel could feel pressure on delivering results, and therefore they could show fake information to justify their positions. This behavior will grow as more control barriers are set. Once the system is implemented, it would be helpful to have a Controller to monitor the transparency of the information. A final inconvenient is that this solution will not match the clients satisfaction, as this mapping of processes focuses on

internal management. A parallel CRM system would complement this. In a similar way, this will not guarantee the suppliers' satisfaction, which is a key strategy for the existence of Tecport LA. This follow up could be made directly through the General Management in keeping and verifying the health of the relationships with the suppliers.

6.1.7 Weekly Skype meetings among different branches

The General Management should receive the reports and indicators of the last week performance and convoke a one-hour long meeting with each functional group through Skype. It would be advisable to have a meeting with all the Operations Managers, and then with the Spare Parts Managers throughout the three branches – Peru, Brazil and Chile. In this meeting, the presence of the Administrators is essential to confirm the revenues obtained. This meeting should -in first place- review the individual performances of each member, asking for the justification of each indicator. In second place, these meetings should boost the knowledge transfer through the sharing of experiences, and the formulation of new corporate strategies.

Benefits. The main advantage of this implementation is that the interaction among branches is guaranteed. Therefore, it should promote the cooperation between peers of the same position. Another benefit is that the key personnel of the corporation will present their results face to face with the Management, so it could provoke discussion and analysis of the root-cause of some of the problems that prevent from growing. Another plus of this solution is that weekly conversations are the best chance the Corporation has of transmitting its culture. For instance, how the operational areas should interact with the administrative ones. Finally, these weekly meetings promote innovation and can give insights on how to improve the marketing of the products offered, in all the 7Ps of the service. Lastly, one advantage is the limited human resources the Group has, which allows that each position has the decision-

making power in their areas. This avoids the fact of blaming others for mistakes with a service. One factor in favor is the responsibilities list each position already has.

Possible problems. The most common problem when trying to implement weekly meetings is that the personnel may put the excuse that they are busy or that they must attend an urgency. The consulting team could experience this reaction every time it tried to meet with the employees. The General Manager, Mr. Alejandro Sarria –on the other side- was always willing to attend the meetings. This attitude is greatly motivation for the rest to give the importance to this implementation.

Another problem when having these meetings is that the information may be distorted due that there is a screenshot or a cut of a work in progress and the results could be not exact. It is important to set the parameters for presenting the information when this inconvenient occurs. Reliable information is the key success factor for this implementation. The third problem would be that personnel do not believe in the power of these meetings. Furthermore, if the meetings are not taken accordingly and respecting the times, the agenda and the routine of the meeting, people could start taking them as useless and a waste of time. It is common that the personnel in one branch will not be interested in the performance of the other branch. As a solution, it is important the role of General Manager or the Controller to lead the meetings in the best way.

6.1.8 Trimestral evaluation of the performance of each employee

Finally, the consulting team is suggesting to conduct a trimestral evaluation of the performance of each employee. This evaluation must have a rigid format to avoid biased perceptions. After the evaluation is done, there should be formal programmed individual and private feedback-meetings with each person to speak up the perception of their performance, analyze the problems each position faces that prevent them from improving, and listening to the employee about his own assessment.

Benefits. The main benefit of applying evaluations is that there is a formal opportunity for the employees to interact with their managers. Even though, almost all the countries in Latin America have large power distance and score high in uncertainty avoidance, evaluations will allow a two-ways feedback, in some way or the other. For instance, it is quite probable that one employee will blame others for not achieving his goals, and in some indirect way, this blame will touch the manager of the company or even the corporation itself. This way a growing loop could be constructed for the Corporation's sustainable growth.

Another benefit would be to feed the positions profile for future recruitments. Equiports already has the profile of each position, but it could be more specific, based on the experience of implementing this solution. For instance, it was underestimated the skills of information management and reporting to the leaders of the organization, and also the value of open knowledge-sharing. These conflicts between profiles and positions could be prevented for future recruitment regardless of the branch.

Finally, as a third benefit, this solution will allow the possibility of constructing a sustainable business based on the passion of its employees. For instance, the model that comes from Jack Welch, while President/CEO of General Electric, is presented below in Figure 17. This top-management tool will provide ways for Tecport LA to do its human resources management. As an outcome, the general managers of each branch will be able to take decisions on: (a) transferring of positions or relocation; (b) promotions and incentives; (c) applying (new) strategies for engagement; (d) retention of talent for the people who exceed the expectations in both aspects; or (e) firing based on results, values or both. As a consequence, this tool –if well applied- will profile and boost high performance, values-aligned culture in the Corporation.

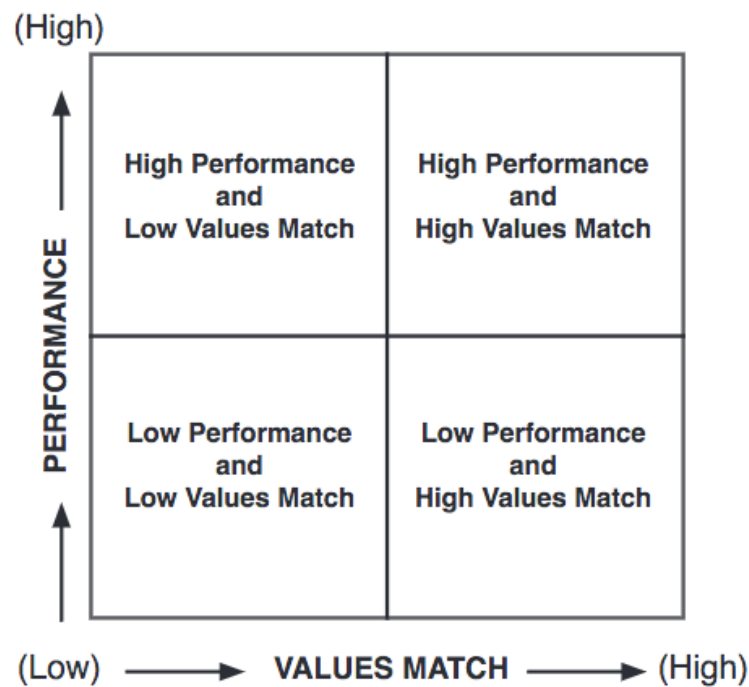


Figure 17. The performance-values matrix. Retrieved from “GE’s Two-decade Transformation: Jack Welch’s Leadership”, by C. Bartlett, & M. Wozny, 1999, *Harvard Business School*, case 399-150. Boston: MA: Harvard Business School Publishing.

Possible problems. The main problem would be if the current and future General Managers of each division or branch do not have the profile to do this evaluation. Primarily, what is needed from the leaders is the ability to have face to face confrontation and an accurate indulgence level. Furthermore, there need to be a well constructed relationship throughout all the levels of the organization. Considering that each branch operates in the same physical office room, this could mitigate this problem.

6.2 Assessment of Alternatives

As for the qualitative assessment of solution alternatives, each one of the eight solution alternatives was analyzed regarding the benefits they provide and potential problems each may have. Based on this, the first attempt was to develop the fifth alternative, a virtual platform to interact with clients. The consulting team met the responsible people of the Centrum SIAL and the Tecport's GM, and concluding that there were necessary steps that had been avoided before implementing that. It was found that it is difficult to implement a

virtual platform in a short period of time as the expansion into Chile has started. After the various analyses and many discussions with Tecport's GM, it seemed apparent that the necessary next step for the organization was to develop a mapping of processes of the three operational positions and define KPIs for control.

To confirm the hypothesis, a quantitative analysis was made. The main criteria used in determining these possible solutions were four factors: (a) the timeframe in which this project could be completed and yield results, (b) the cost associated to the defined timeframe, (c) the overall advantages of each possible solutions, and lastly (d) the feasibility of the project. After this brainstorming with the client, there will be a weighted quantitative valuation to determine each solution's effect in the Group. For this purpose, each positive factor (benefit) will be weighted by a percentage with a positive sign. On the contrary, the negative factors will be weighted by a percentage with a negative sign, and both will make an average of the impact of the service quality (from zero to 10). Also, the cost and the time of implementation will have inverse rating, from 10 to zero. Finally, the weighted sum will be multiplied by the complement of the risk of failure in the long term. The results are shown in Table 6, where alternatives 6, 7 and 8 achieved the highest scores.

6.3 Conclusions

As the literature review suggested, distinct possible solutions were assessed from the many dimensions of knowledge management, which went from transferring explicit or tangible information to tacit information, to ways of involving the human capital of the organization, and finally tools to assess the problem-solving. The advantages and disadvantages of each of them were identified, which disclosed the dimensions of KM: technology, culture and behavior, and leadership. As a conclusion of these analyses, it has been proofed what Mei-Hsian, & Tarng-Yao (2016) stated for SMEs: the KM solution will succeed in function of how close and familiar are the generators of knowledge.

Table 6

Assessment of possible solutions

Possible solution	Impact in Service Quality	Cost (*)	Time of implementation (*)	Risk of failure in the long term	Total Rating (**)
	Weight	50%	35%		
1 Direct knowledge transfer moving human capital	5	4	0	70%	1.17
2 Develop a manual of corporate knowledge	2	6	7	70%	1.25
3 Compile all technical information in the cloud	3	8	8	20%	4.40
4 Construct a Client Service Staff (CSS) network	7	4	3	40%	3.21
5 Develop a virtual platform to interact with clients	10	0	3	20%	4.36
6 Mapping of processes of the three key operational positions in Tecport and define KPIs	8	6	7	10%	6.44
7 Weekly Skype meetings among different branches	8	8	8	0%	8.00
8 Trimestral evaluation of the performance of each employee	7	10	10	20%	6.80

Notes. (*) The cost and time of implementation are measured in the inverse proportion. The highest cost gets a zero, and the lowest cost gets a 10. Similarly, the longest time of implementation gets a zero, and the shortest time get a 10. (**) The total rating is calculated by adding the three weighted variables (variable value x weight), and multiplying this sum by (1 – risk of failure).

As the literature review suggested (see pages 46-47), corporate culture plays an important role in all the solution alternatives. For instance, how used or trained are the employees to receive instructions; whether they are more visual or they prefer written information; how the relationship with their bosses are; etc. This aspect also influenced in the decision of mapping processes as a first stage, rather than a manual.

The quantitative assessment of the possible solutions has been vital for finding the best way of knowledge management, as it measures three crucial aspects for Tecport LA: impact in service quality, cost and time of implementation. These weighted rating has confirmed the qualitative analysis in the need of having the main processes mapped. However, it also showed up that the most effective solution would be the direct interaction between employees through video calls, which at first did not seem as impactful as the others.

Finally, in line with the literature findings in terms of measurement of performances and incentives, the solution number eight profiles as the best way, as Tecport has a very flat organization and is not willing yet to apply commissions per sale, until they grow substantially. This tool of trimestral individual evaluations seem to be a very rewarding opportunity for the employee to be listened and recognized, and for the employee to confirm that the culture is being spread throughout the organization.

Chapter VII: Proposed Solution

7.1 Justification for the Problem Solving

As a final decision for the assessment of possible solutions, it was decided the implementation of the alternatives number 6, 7 and 8 as they scored considerably higher than the rest. It is to say, mapping of processes of the three key operational positions in Tecport and define KPIs, weekly skype meeting among different branches, and trimestral evaluation of the performance of each employee. As it was analyzed in the literature review, these three strategies fall into one: a Business Process Management (BPM) program, which will allow Tecport LA to achieve a control over an efficient knowledge transfer in the short term, and strategic business intelligence in the long run.

The pyramid of management development consists of three layers: (a) The bottom layer of the pyramid illustrates the basic managerial source of Tecport, including the early attempts - ERP, blog forum and other integrated systems of management. In previous discussion, the ERP only has been used for placing service orders, and accounting and invoicing, but has difficulty of implementing in HR management process. (b) The second layer is the core of proposed design, mainly considering Supply Chain Management and Client Relationship Management. Managers are able to better control and oversee the entire organization by implementing the designed managerial and administrative activities. And (c) the third layer is looking to the future strategic plan. Once the proposed second layer is well-implemented, the company is expected to develop further business intelligence (See Figure 18).

Regarding the design for the second layer, “BPM includes methods, techniques, and tools to support the design, enactment, management, and analysis of operational business processes” (Van der Aalst, Ter Hofstede, & Weske, 2003). In other words, BPM can be described as “processes’ optimization”, as it focuses on efficiency, effectiveness,

functionality, cost reductions and revenue generation. Next to be discussed is the mapping of processes of the key operational positions, while the design of trimestral performance evaluation and routine meeting agenda will be routine activities throughout the whole operation process. Another author –Martin Christopher- remarked (2011) that the logistics’ leverage is based on the coordination between procurement, internal management and distribution network. This is precisely Tecport LA’s core business, to be this coordination. The BPM system aims to connect all the supply chain management (SCM) and enhance its value chain (see Figure 19).

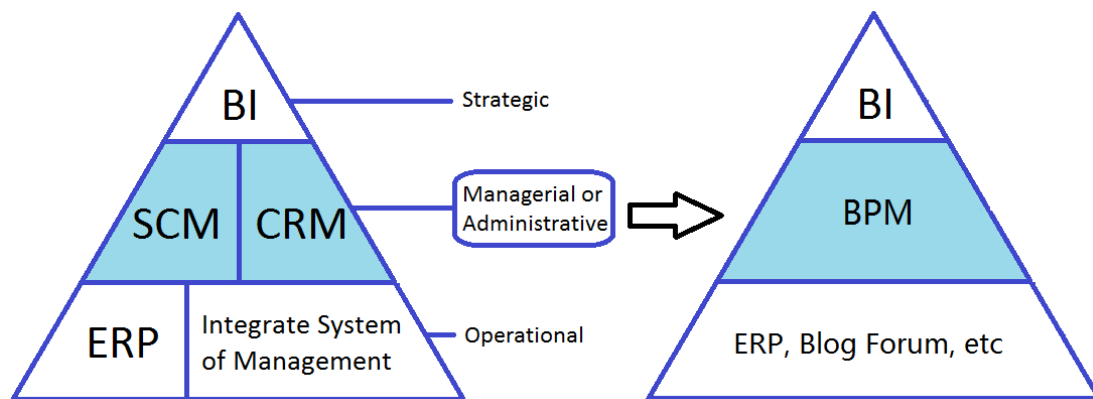


Figure 18. Pyramid of management development in organizations.

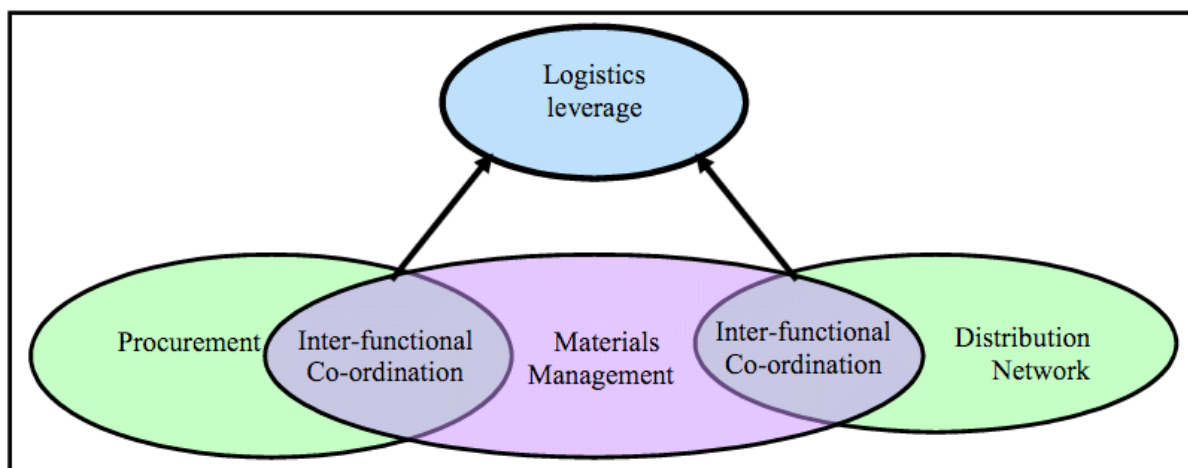


Figure 19. Inter-functional coordination between logistics functions. Retrieved from “Logistics & Supply Chain Management”, by M. Christopher, 2011, 4th ed., p. 92.

The solution proposed -the Business Process Management system- has a policy-making approach. From the implementation onwards, Tecport must treat its processes as

important assets in the organization, and not just a workflow management approach. This tool will add value to the service provided by Tecport, in the sense of generating structured knowledge, which could be replicated elsewhere. From this point, the transfer of knowledge, which is the main problem of this project, can be successfully achieved due to its real-time condition that allows monitoring and control at any point in time. Furthermore, the weekly interaction between the functional teams will permit the exchange of experiences and problem-solving within the same operational position.

Due to time limitation for the current Consulting Project, the scope of the BPM was narrowed to the three key work positions in the Corporation: Operational or After Sales Management (OM/ASM), Spare Parts Management (SPM), and Commercial Management (CM). This decision was made in accordance with the Tecport GM, and based on: (a) the importance of this three work positions due to its direct interaction with the customers; (b) the Administrative or Support Area already has the Microsoft Strategy ERP as a framework for their performance; (c) the urgency and need of structuring these processes to get reports that allow decision-making at a top-management level.

7.2 Mapping of the BPM System

The design of the BPM system takes into consideration both the Supply Chain Management and the Client Relationship Management. The aspects include the mapping of processes of the key operational positions, the criteria of performance evaluation and the data analysis methods. Firstly, a value stream is mapped to illustrate the overall view of Tecport's operational structure. Then the mappings of vital work steps are discussed to supplement and support the proposed structure.

7.2.1 Value Stream Mapping (VSM)

Firstly, the value stream mapping method has been adapted to give an overall view of Tecport's current operation activities. VSM is a process that comprises of a number of related

activities allowing the company to examine all the steps currently embedded in their operation. It supports managers to determine the key emphasis in work steps, and leads to the development of a list of continuous improvement initiatives that span every facet of the value chain (Riggs and Robbins, 1998). As Tecport has a big volume sale on spare parts, the value chain framework for the sales segment is based on SPM Franco's workflow (See Figure 20). The equipment sale process basically applies the same value chain framework. The main different is that Supplier Selection step is not necessary in equipment sale process, since the company only focusing on CVS equipment.

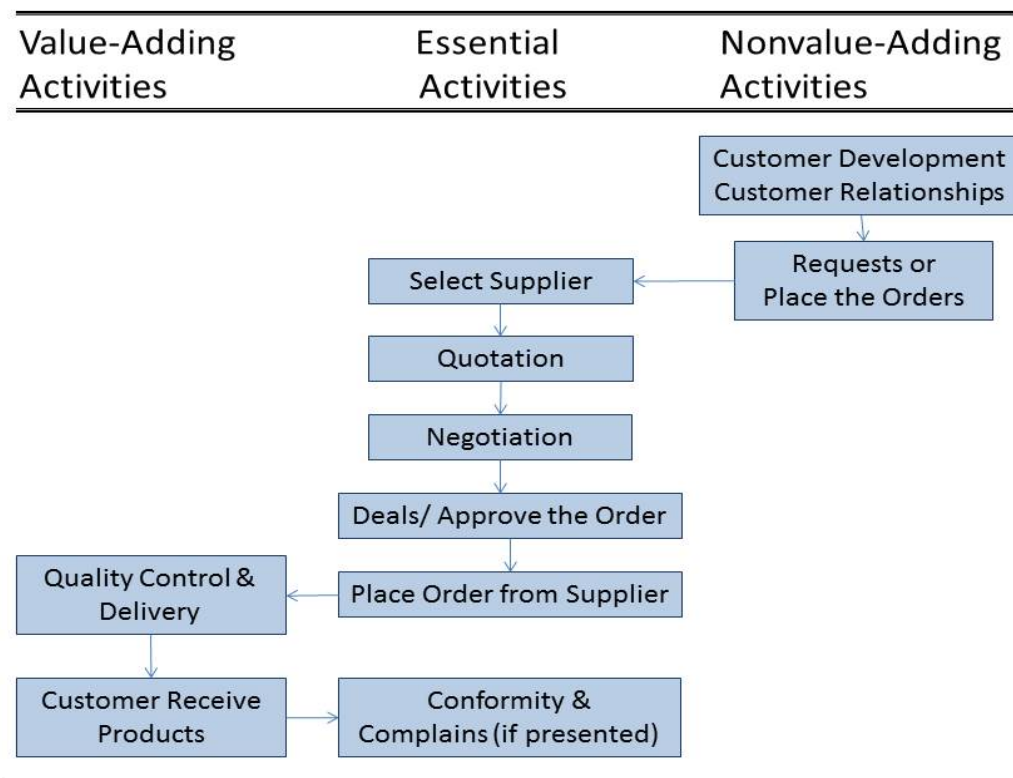


Figure 20. Value stream of sales process.

As analyzed, the activities start from quality control to the customer receiving products which are considered as Value-adding activities that add value to the customers. The activities including supplier selection, quotation, negotiation, deal approving and purchasing, as well as the conformity process are considered as essential activities encompass indirect support of the value-added efforts. The customer development and relationship

building efforts, along with the inquiry process are considered as non value-adding activities which are not adding value to customers but beneficial to be developed for the company's performance.

One of Tecport's core is rental service, which will also be mainly developed in the upcoming Chilean market. It is significant to figure out the work-focus regarding equipment renting segment (See Figure 21). Through the same analysis, because CVS is the only equipment supplier for Tecport's rental segment, the only value-adding activity is to provide customers with the best maintenance service during the contracted period. Other key emphasis work steps could refer the sales value chain framework.

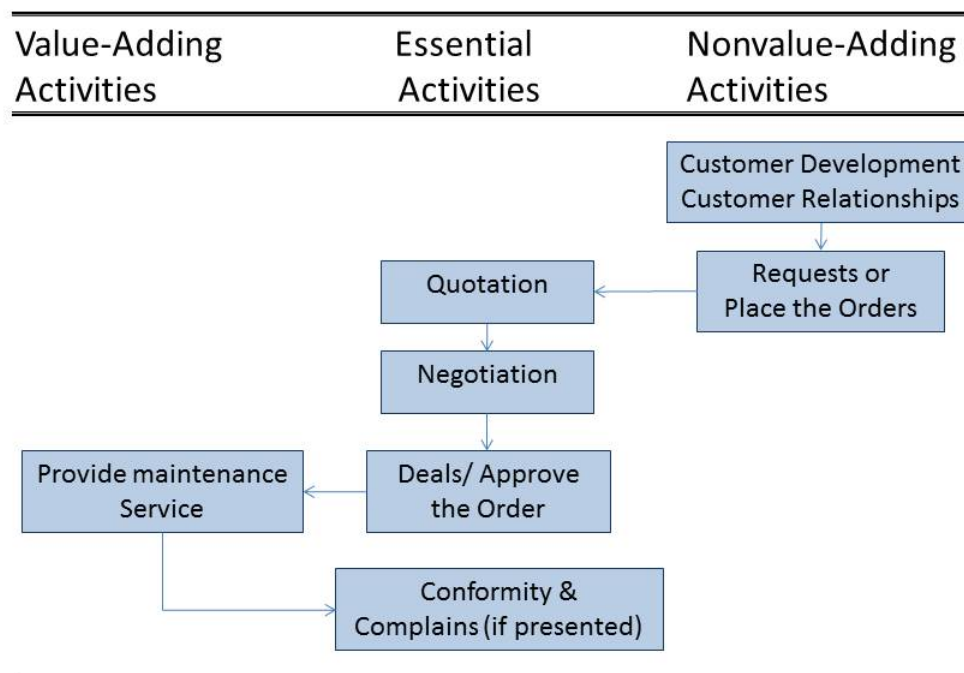


Figure 21. Value stream of rental process.

Next to be discussed is the detailed framework of each of the vital work steps, which is aiming to provide the company with a clear operational guidance.

7.2.2 Customer Development and Customer Relationships

Developing new customers rather than waiting for customer requests is a way to keep business vital. Feedback from customers is also essential for the future improvement of

business. Based on the main activities of Tecport's operation, a sample framework regarding how to analyze and develop customer database was developed (see Figure 22). In this table, it can be seen four segmentation variables: (1) type of business –depots or ports, (2) total valorized equipment, (3) total Tecport sales with each client, and (4) duration of the relationship.

Moreover, the delocalization and segmentation of clients could be analyzed annually or seasonally, as will be seen in the next section of key performance indicators (see Figure 23). In this, three variables can be graphically represented. Each dot represents one client. The size of the dot represent the total sales with this client. The colour of the dot can represent the duration of the relationship with him: not yet customer in red, from one to six month in orange, from six months to two year in yellow, and more than two years in green.

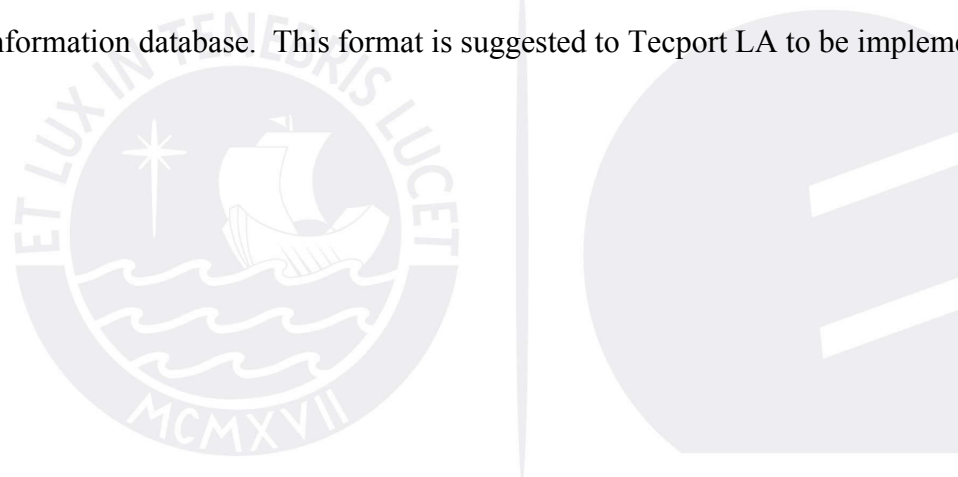
The formatted customer information note sheet is aiming to reduce non-contributory time searching for the contacts in each company at any department. Furthermore, and most important, to efficiently manage customers by carrying out personalized promotion, utilization of digital marketing, and to easily develop the sale of spare parts in e-commerce platforms. Furthermore, considering the different focus regarding new clients and existing clients, the different strategies has been mapped as seen in Table 7.

7.2.3 Inquiries and Quotations

At Tecport, quality customer service is crucial and clients' needs are highly individualistic. Owing to the fact that these needs are distinctive and providing optimal service is vital to the company's success, it is essential that that there is complete transparency between Tecport and the client in terms of service costs. In order to achieve transparency, Tecport always illustrates the breakdown of the involved costs with services provided.

ID	Name	Type of business	Address	Number of Port machines				Total valorized port machinery (USD)	Client since	General Rating	Rating per region	Contact	Phone number	E-mail	Comments
				Reach stackers	Empty container handlers	Forklift trucks	Sea cranes								
PE-001									7						
PE-002		Depots		a	b	c	d	ax+by+cw+dz	Not yet customer	6					
CH-001		Ports							1-6 months	8					
CH-002									6months-2years	2					
BR-001									More than 2 years	1					
BR-002										4					
MX-001										3					
MX-002										5					

Figure 22. Prototype of customer information database. This format is suggested to Tecport LA to be implemented in a shared Excel sheet.



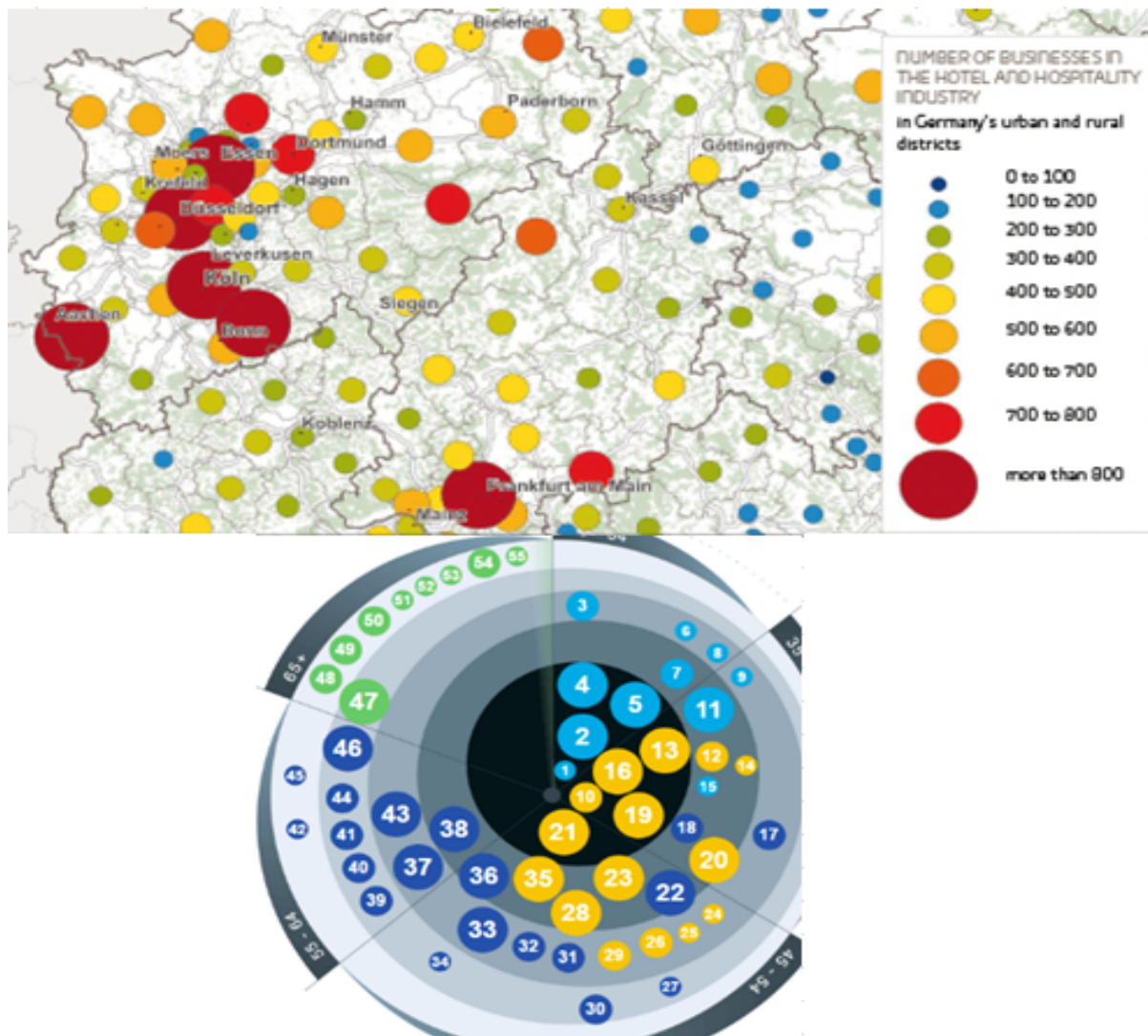


Figure 23. Map of geo-localization and segmentation. Adapted from the open source application Google Plus Local, used in combination with Google Maps.

In order to achieve an effective quotation, the Sales Manager must take into consideration the list price set by the supplier and then set the profit margin. Once this is determined, he/she can draft a quotation for the client. Next, the quotation is delivered to the client where either an agreement or negotiation is made. (See Figure 24).

To distinguish itself from competitors, Tecport can customize quotations depending on the quality of the relationship with its clients. For instance, in the case of high-value customers, Tecport can offer incentives such as extended warranties, reduced costs on

maintenance (or free maintenance for a select period of time), etc. The framework of recording inquiry and quotation processes are shown in Figure 25.

Table 7

Process of Customer Development and Relationships Maintenance

For New Clients

Preliminary

- 1.- Have a list of all potential clients (in Google, gather information in the field, in the national ports associations, etc.)
- 2.- Have stock of brochures ready to be delivered, with a letter of presentation.
- 3.- Have a standardized e-mail content presenting the company and the products offered.
- 4.- Set a monthly goal for capturing new clients.

Routine

- 1.- Gather always all the information in the database of Customers.
 - 2.- Contact the General Manager and/or Commercial Area of each new company for a meeting.
 - 3.- Take a look at the weekly indicators.
-

For Old Clients

Preliminary

- 1.- Gather always all the information in the database of Customers.
- 2.- Set a monthly goal for contacting old clients.

Routine

- 1.- Call or arrange a meeting with the contact in each company-customer.
 - 2.- Take a look at the weekly indicators.
-

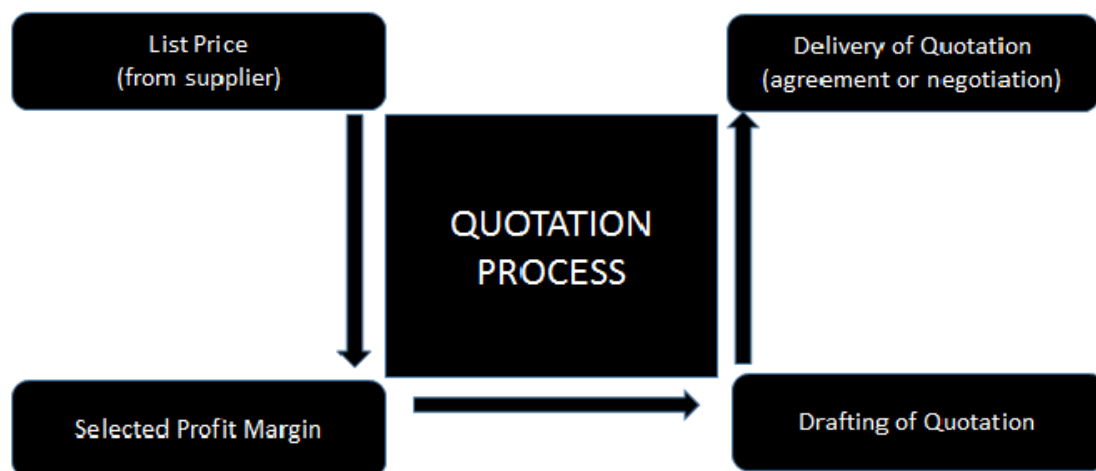
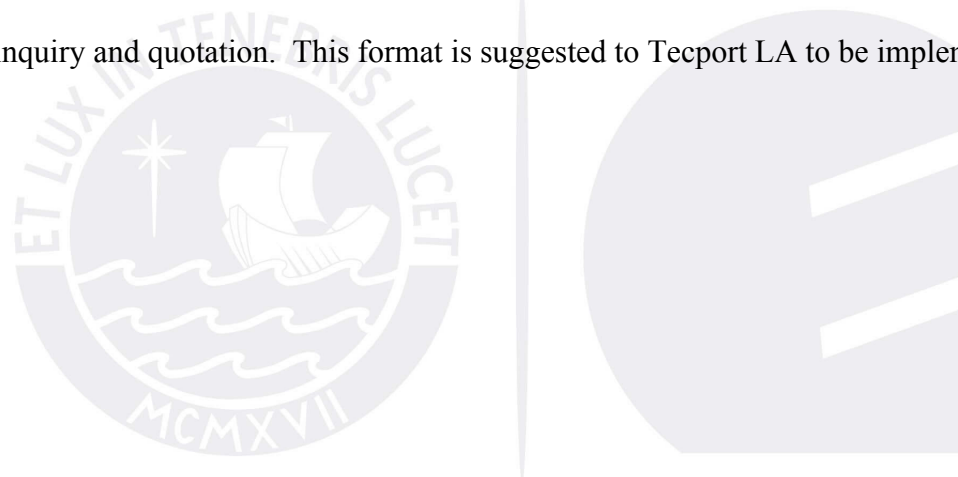


Figure 24. Quotation process.

Inquiry /Quotation ID	Customer ID	REQUEST						1st. QUOTATION				NEGOTIATION		DEAL / SALE			Comments
		Date	Type	Product Name	Supplier	Brand	Product ID	Date	Price (USD)	Initial Chance of sale	Cause	Last Chance of sale	Cause	Date	Price (USD)	Status	
001	PE-001		Sale of machine							20%	Non-competitive price	50%				Concreted	
002	PE-002		Rent of machine				ID=product+supplier+brand			50%	Non-differentiation	30%				Waiting for answer	
003	CH-001		Sale of spare parts							80%	In stock for immediate delivery	40%				Rejected	
004	CH-002		Preventive maintenance							100%	Long-time client	100%					
005	BR-001		Guarantee														
006	BR-002		Maintenance														
007	MX-001																
008	MX-002																

Figure 25. Prototype of process of inquiry and quotation. This format is suggested to Tecport LA to be implemented in a shared Excel sheet.



7.2.4 Negotiation

The evaluation of negotiations' performance is mainly looking at the conversion of client's status. The idea is to keep eyes on the numbers of potential, contact clients, VIP clients and contracted clients, and to analyze the efficiency of negotiation activity. The analysis criteria considered conversion rate and time (see Figure 26). Meanwhile, other important evaluation criteria of negotiation performance are also shown in Figure 27.

	Numbers			
Potential clients			Clients conversion rate (%)	Average conversion time (d)
Contact clients		P-C		
VIP clients		C-V		
Contracted clients		V-C		
* potential clients - target but not contacted yet; contact client - contacted but not a decided purchase plan; VIP clients - negotiating contract; contracted clients - old clients * the higher P-C conversion rate the better performance of customer development; the higher C-V and V-C rate the better performance of negotiations				

Figure 26. Negotiation indicators part 1.

Relationship build		Professional level		Preparation	
Proper language - kind word + promoting	<input checked="" type="checkbox"/>	Focus on obj. Manage personal talking	<input checked="" type="checkbox"/>	Background research	<input checked="" type="checkbox"/>
Avoid dangerous words/red flags	<input type="checkbox"/>	Simple assumption	<input checked="" type="checkbox"/>	Pre-negotiations	<input checked="" type="checkbox"/>
Patient, good emotional express	<input checked="" type="checkbox"/>	Just the fact	<input type="checkbox"/>		

Figure 27. Negotiation indicators part 2.

7.2.5 Deals and Delivery

The deal-making process is aiming to monitor the price change and the administration performance (see Figure 28). Particularly, in price category, a trimestral analysis of average price and market price should be record in order to help the company understand market trend. And the special approval analysis in administration category would be helpful for exploring customer's demand. The delivery process is basically aiming to monitor the quality control process and the delivery time, it is also been designed to gather customer's feedbacks

and to gradually build a database, which could support cross-regional knowledge transfer in the long term (see Figure 29).

Clients			Price				Administration			
Inquiry ID	Deals ID	Name	Final price	Cost	Average price	Market price	Deal start date	Deal close date	Selected supplier	Special approval
PE-001										
PE-002										
PE-003										
ChI-001										
ChI-001										

* Average price shows a variation tendency of previous contracted deal price;
 * Market price shows as range;
 * Special approval: discount, delivery terms, payment terms

Figure 28. Process of deal-making.

Inquiry ID	Deals ID	Name	Amount	Date of delivery	Warrant	Quality controls at delivery	Type of complaint	Conformity
PE-001								
PE-002								
PE-003								
ChI-001								
ChI-001								

Figure 29. Process of delivery.

7.2.6 Management of Suppliers

The intention of the BPM system is not to replace a Customer Relationship Management (CRM), but anyways, to give some follow up to the procurement. Figure 30 shows a summary of how suppliers should be managed in order to get the best strategy in the upper supply chain management. In this assessment, four aspects play a role: procurement cycle time, ratio of rejection (quality control), contract compliance, and cost reduction.

All the tables above should be rigid -constrained by filters and named by ID's- so that it do not allow diversified information. This is essentially important to standardize in an international arena. However, the formats implemented must have room for innovation. That is the reason why the "Comments" part is placed in all the tables. It is important to take a look at this column from time to time to identify if there is a frequent item that worth being placed inside the table.

Procurement Cycle Time				
Part ID#	Supplier	Date Order Placed	Date Received	Time Elapsed
Part ID#				
Part ID#				
Part ID#				

Ratio of Rejection				
Part ID#	Supplier	\$value of goods rejected	\$value of goods received	Ratio of Rejection (Rejected/Received)
Part ID#				
Part ID#				
Part ID#				

Contract Compliance (Y/N)				
Part ID#	Supplier	Service Level Agreements	Terms and Agreements	Pricing Agreements
Part ID#				
Part ID#				
Part ID#				

Cost Reduction				
Part ID#	Supplier	List Price	Best Price	Cost Reduction
Part ID#				
Part ID#				
Part ID#				

Figure 30. Procurement, quality control, and cost reduction in management of suppliers.

7.3 Key Performance Indicators

Using this system as a structure in which the consultant solution will be implemented will aid employees' respond to the dynamic and hyper-competitive environments. Employees being granted access to the mapping system of one another and the understanding of the top managers' KPI's questionnaire across all subsidiaries will allow for a greater support system where cross-cultural functional teams can learn from one another and thus create synergies. The general manager emphasizing the learning culture system will boost a number of job related activities especially in decision-making processes and critical technical activities in a more promptly and productive manner.

In practical implications, the systems need to be integrated and exchange data in order to increase availability and readiness of information to support top management and the operational level. As the BPM program is about to build an integrate system, it is better to implement all steps as a whole. Namely, there are lots of indicators are correlative with others throughout the different processes, for example, the supplier selection during quotation and negotiation processes is highly rely on the outcomes of supplier evaluation process.

Therefore, a coordinative development of all designed categories within BPM system is required.

7.3.1 Development of KPI's

One of the main benefits of implementing a BPM is that it allows to do a reengineering in the whole organization based on a critical view at the way things had been carried. The connection between the operational areas and the decision-makers in the organization is the list of KPI's. If KPI's are chosen accurately, they are able to speak up by their selves to their two main audience: operators and executives. To the first group, KPI's allow a self-assessment of performance. To the second group –executives- this information is the base for decision-making.

The first group of KPIs could be extracted from the first stage of the BPM: the CRM system in its earliest stage. First of all, to know the number of total clients allows to know each company's market share and in the whole region. Secondly, the number of clients each position has reached and engaged monthly speak up how engaged each operational position is with the vision of the Corporation. Tecport's GM expressed that this measure should be based on the first deal closed. Then, the number of old clients contacted monthly by each position guarantees the capture of more services with the same clients. Finally, from the geo-localization it is possible to identify Tecport's strategic cluster of sales opportunities.

The rest of indicators from the six groups of processes are shown in Table 8, with its correspondent units, clarifying description and optimal limits. All these numbers should be formulated and linked from the input tables in one unique dashboard in an A-3 format. This Control Panel will sum up the whole Corporation's performance in each of its positions. This output is the main document of the weekly meetings among the multi-functional teams. For instance, if the ratio of closed deals is low, then it should be assessed what is happening in the quotation and negotiation stages. When checking these indicators, there should come up

one or two reasons that explain the problem. A first prototype of control panel is shown in Figure 31. This outcome must be fed and reinforced by the functional teams in the implementation stages.

7.4 Conclusions

The proposed solution is the result of joining three of the eight initiatives assessed with the Tecport's CEO, which turns into a whole Business Process Management system. The benefits of implementing this would be: (a) lowering costs, (b) providing superior customer service, (c) adding new value-added services, (d) achieving greater flexibility, and (e) attaining faster innovation. The mapping of processes by its own is just one type of information and probably the most tangible one, so it is not enough to obtain a whole knowledge management system. For transferring the most tacit information across the organization it is essential to have direct contact among peers and employee-chiefs.

Regarding the mapping of processes, they need to be client-centric, meaning that every decision of incorporating or deleting activities must be thought in terms of how much it will impact the current clients and potential clients. For shaping the tables and figures suggested in this chapter, design thinking has been applied as a technique. It would be advisable to keep using this methodology when fitting them to their last version.

The KPI's proposed and agreed with the Tecport's CEO, involved the six big groups of processes from the mapping: (1) customer development, (2) inquiries and quotation, (3) negotiation, (4) deals, (5) deliveries, and (6) management of suppliers. With this information, Tecport's management has in hands a dashboard, which will represent the base for decision-making at all levels. It will be crucial that these numbers and dashboards are understood by everyone, both the operational and non-operational positions. Thus everyone can notice if the goals are being achieved and everyone contributes and supports in what is missing or needed.

Table 8

List of KPI's, Units and Optimal Limits

	Units	Clarification	Optimal Limit
1 Customer Development			
1.1 Total clients	number		-
1.2 Clients reached and engaged monthly per position	number		3
1.3 Old clients contacted monthly per position	number		10
1.4 Ranking of clients based on revenues	number		-
1.5 Geo-localization	graph		-
2 Inquiries & Quotations			
2.1 Response time	days		2
2.2 On-Time Performance on Fulfillment Orders	%	Commitment to delivery date (on or before the appointment time)	95%
2.3 Order (SO) Accuracy / Order Error	%	Correct/incorrect orders filled in relation to the total.	95% - 5%
2.4 Duration of Business Relationships	years		-
2.5 Average initial chance of sale	%		-
2.6 Most incident causes of initial chance of sale	top 3		-
2.7 Forecast accuracy	%		75%
3 Negotiation			
3.1 Negotiation time	days		7
3.2 Chance in the ZMOT	%	Chance after negotiation, in the zero moment of truth	75%
3.3 Most incident causes of ZMOT	top 3		-
4 Deals			
4.1 Quotations resulting in agreement & contract	number	Number measured in contracts.	-
4.2 Order confirmation / order completeness	%	Close of sale or rejection.	80%
4.3 Resulted Gain / Loss in Revenue in USD	USD		-
4.4 Resulted Gain / Loss in Revenue in percentage	%		10%
4.5 Sale process time	days		15
5 Delivery			
5.1 Delivery process time	days		45
5.2 On-Time Final Delivery	%		85%
5.3 Order predictability	%		75%
5.4 Loss and damages	%		0%
5.5 Percentage of non-conformity products (NCP)	%		5%
5.6 Number of claims	number	Number of clients' complaints, not percentage. Not claim ratio.	-
6 Management of Suppliers / SCM			
6.1 Order receiving	number		-
6.2 Monthly bargaining power per position	USD		20,000
6.3 On-Time Shipping / Delivery lead time	%	Percentage of shipments that left the supplier's warehouse on-time	100
6.4 Availability of stock	%	Immediate deliveries in ratio with the total deliveries.	-

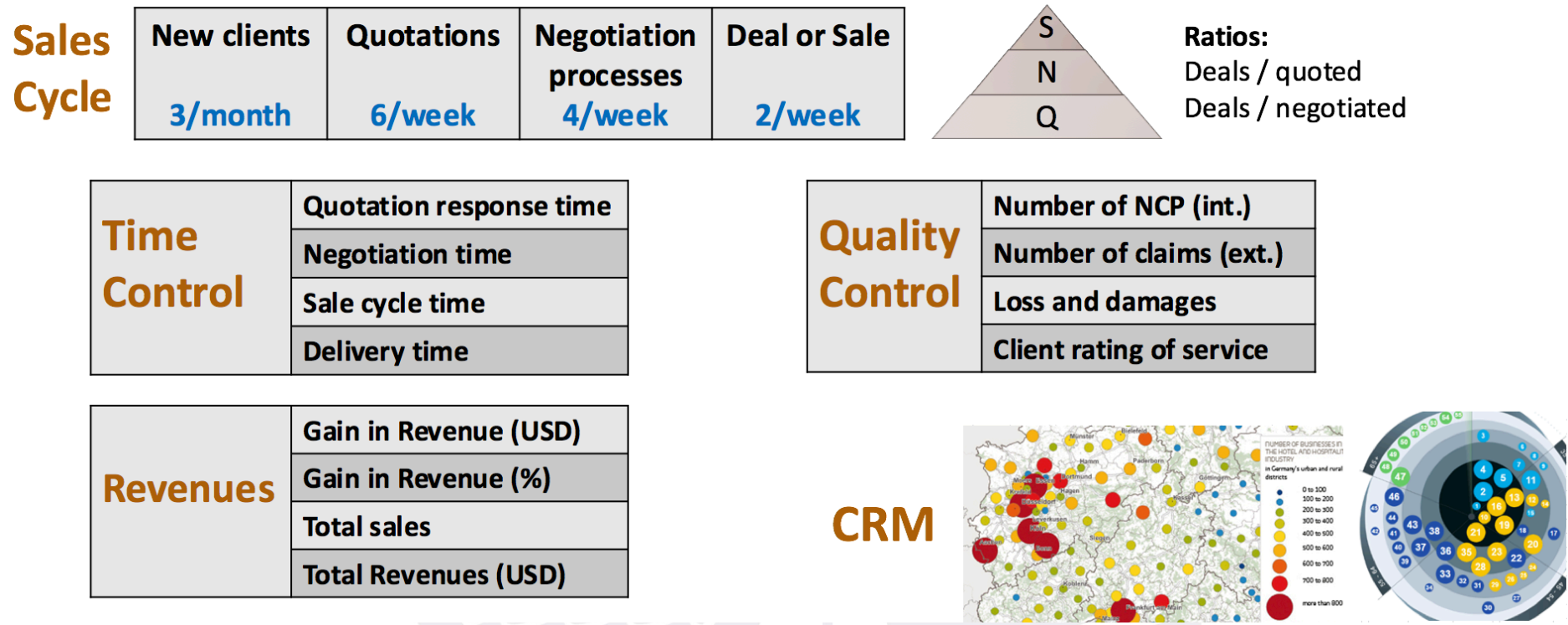


Figure 31. First prototype of the control panel with KPI's for decision making.

Chapter VIII: Implementation Plan and Key Success Factors

8.1 Implementation plan

8.1.1 Implementation activities

After assessing all possible solutions and reaching consensus as to how Tecport can most efficiently transfer knowledge across the group, an implementation plan must be developed to efficiently and effectively integrate the solution into the company.

Implementation will occur in step-by-step phases where considerations regarding urgency and cost will be emphasized. Accordingly, implementation activities will be divided into preliminary activities and routine activities and timing will be represented visually using a Gantt Chart.

Preliminary activities. This stage represents the most critical decisions and actions for the implementation of the BPM. This set of five activities is as follows: (a) meeting between general managers, (b) assessment of current organizational structure, (c) transfer of data into the cloud and the BPM tool, (d) convey reasoning and benefits to employees, and (e) meetings with positions.

Meeting between General Managers. The very first implementation activity that should occur is for all GMs to meet and have a mutual understanding of the benefits and uses of the Business Process Management system and the related analysis and evaluation of KPIs. When the GMs have this clear understanding which is uniform across the group, they can then convey these further across each respective office. Also in this activity, consensus can be developed as to the specifics of each KPI as well as specific implementation decisions each country's office must make.

Assess current Organizational Structure. For this solution, a preliminary activity of implementing the BPM tool is also to do an assessment of the current organizational structure. Depending on the current structure at Tecport and the desired structure based on the

mapping, decisions will have to be made regarding employee turnover and how the modification of staffing will be conducted. Also, in what areas modifications in responsibilities must be considered. If possible, KPI's of the current situation of the company will be assessed and create benchmarkings for future improvements. Furthermore, before implementing the BPM tool, financial considerations should be considered for every step of the implementation. In the initial phase, the amount that the company will need to invest due to adding responsibilities among employees must be considered.

Transfer data into a Cloud service and process mapping tool. To first prepare utilizing the BPM tool, data and information must be transferred into a cloud service which can be viewed and edited across the Tecport group. This will standardize information across branches and ensure that all information is understood the same way. Based to the information inputted, current KPI's may or may not be assessed. This role of data transfer may be done by the technical staff Antonio in order to allow the OM/ASM, SPM, and GM to remain focused on their positions.

Convey reasoning and benefits to employees. A further step that must be made is for management to convey the reasoning and benefits of implementing this tool to employees. A meeting should be arranged to do this and ensure all employees have an understanding of why this tool will benefit Tecport as a group. This should be done in three meetings; first with the office in Peru, then with the office in Brazil and lastly with the office in Chile. Furthermore, meetings should be conducted with members of the same position across all offices. This is to further solidify the standardization of operations and information input of the same positions.

Meetings within positions. Initial meetings should also be set up between departments. The OMs and ASMs in each country should each conduct a meeting to establish a mutual understanding of the processes to follow. Specifics regarding current differences

between country offices should also be discussed and the steps needed to become closer to the proposed standardized processes in the BPM tool. GMs should also be involved in this standardization process.

Routine activities. Four big actions are necessary after the preliminary stage of implementation. These are: (a) information input, (b) KPI's assessment, (c) weekly skype meetings, and (d) trimestral evaluation of employees.

Information input into the process map. Once this structure is in place in all Tecport offices, routine activities will be conducted regarding the process map. For each position, information will be inputted into the standardized mapping sheet in a timely manner based on operations. This information will be viewed by all in similar positions to monitor whether they are following the standardized approach. The standardized formatting of information input will allow KPI's to be clear across the Tecport group.

KPI's assessment. As operations continue, the proposed KPI's will need to be assessed in order to analyze efficiency of the organization. Based on the KPI's, future changes may need to occur in the organization to either improve or maintain performance in operations. KPI's will be analyzed monthly or based on informational needs. Also, through these KPI's which are standard across all offices, comparisons can be made between the offices to see how and why certain performances are better than others in each office.

Weekly Skype meetings. To maintain the effectiveness of the BPM tool, weekly Skype meetings will be conducted. First to be done is to effectively schedule these meetings. With three branches, scheduling may become difficult and setting a schedule beforehand will ensure that right from the beginning there is consistency in information and idea transfer. By scheduling a dedicated time each week for these meeting right from the beginning, the difficulty of planning around different schedules every week will be avoided. Within the meetings, discussion of KPI's will highlight why certain offices perform certain activities

more or less efficiently than the others, and accordingly, transferring knowledge within the group. What also must routinely occur within these Skype conferences is a recording of meeting minutes. These minutes are notes and records of decisions made and ideas shared within meetings and will highlight the effectiveness of each meeting. This is important as they will ensure that all participants can continuously see the benefits of having these meetings.

Trimestral evaluations of employees. Evaluation of Employees will be conducted in order to see how closely the organization is lining up with the mapped processes. This will ensure that standardization is maintained within positions and that information is efficiently shared. These evaluations must be unbiased and therefore a standard criteria must be created and should be used when evaluating employees. These evaluations will also highlight, based on KPI's, individual employee performance and give a better understanding as to where improvements need to be made among employees.

8.1.2 Timing

In regards to the timing and order of phases in the above implementation activities, a Gantt Chart has been developed to provide a visual representation (See Figure 32). Activities have been divided into the preliminary activities before full utilization of the BPM tool, and routine activities which are carried out alongside the tool. Furthermore, routine activities have been categorized as either an activity regarding analysis of the implemented tool, and evaluation of how it is being used.

8.1.3 Cost of implementation

To implement this solution, a breakdown of costs will be analyzed. Firstly, in terms of data and information transfer into the BPM tool, this will require an estimated week to complete. Whether it is the technical staff, assistant, or outside hire, roughly a week's worth of pay must be considered. Additionally, if a new cloud service is required to provide a place

to input this data, the cost of this service must also be taken into account. In terms of the cost of the solution itself, Tecport will not need to invest money into this because of the nature of the project, it has been developed from a learning opportunity of the consultants. From the breakdown of costs' estimation, the total cost for the first year is PEN 36,160 (see Table 9).

Table 9

Estimation of Costs of Implementation

Item	Concept	Unit	Quantity	Unitary Cost	Partial Cost
1	Preliminary Activities				
1.1	Purchase and installation of a Cloud service	glb.	1	S/. 1,020	S/. 1,020
1.2	Engineers' working time	hours	108	S/. 25	S/. 2,700
1.3	IT developer	month	2	S/. 3,500	S/. 7,000
2	Routine Activities				
2.1	Weekly meetings	hours	936	S/. 25	S/. 23,400
2.2	Cloud service	month	12	S/. 170	S/. 2,040
Total Cost					S/. 36,160.00

8.2 Key Success Factors

Key (or critical) Success Factors (KSF) are *things that must go right* to guarantee the success of any process. In this case, the success expected is on the consulting process itself and most important, in the implementation of the solution proposed. If these pointers are correctly identified, addressed to right specific areas, controlled and managed, the odds for success will increase. First of all, the enablers and risks for the consulting project process will be identified and analyzed in ways of ensuring or avoiding them. In the rest of this chapter, there will be presented enablers, risks and limitations for achieving the outcomes of the solution proposed in the most effective way (lead time with least cost). It is essentially important that Tecport's top management is aware and is in control of these pointers, so they can transmit these to the implementation team.

8.2.1 KSF for the Consulting Project

In order for the consulting project to be completed successfully, it is essential to identify key enablers and risks for this project to be effective and beneficial both for the corporation and for the consulting team. The consultant continuous development in understanding and expanding their expertise in field will lead to polished consultation process and create space for innovative knowledge transfer concepts. Carrying out web research in this field as well as understanding the Latin American market and behavioral pattern will better enable the consultants in reaching the desired outcome.

Ensuring client's commitment to the project at every stage is necessary as they would be the internal motivators for change, having them on the consultant's side will prove vital for result and implementation progress. Building relationships with key personnel that hold decision making power, constant client engagement through active communication, listening to opinions and actively asking for feedback as well as consultant's consistent internal project check in ensuring that each process is linked to client progress, thus ensuring client's commitment.

The outcome of this project is to not just transfer knowledge but to effect changes in how employees share new innovative ideas and translate them into useful information and strategies that can benefit Tecport in the long run. To earnestly engage the OM and SPM, in being part of this change, encouraging brainstorming meetings that pushes employees outside their comfort zone. Additionally, having an administrative staff draw up all ideas that may assist the progress of the project will better assist consultant in understanding the factors client's employees regard as key element required for the Chilean subsidiary. This can be ensured by convincing the GM advocate the significance to employees on how engaging in this practice can be a beneficial factor to the overall success of the change. The list of enablers and risks associated with the process of consulting itself are presented in Table 10.

Table 10

Enablers and risks for the Consulting Project

Enabler		How to ensure it
1	Client's commitment	Relationship building, trust, communication, involving him in the process.
2	Increasing knowledge in the topic	Research in knowledge transfer and Latin America context, go to the library.
3	Implement brainstorming meetings	To convince the CEO of the benefits of these meetings.
4	Access to all levels in the organizational structure	Personal contact with the key positions in the organization.
5	To use the administrative staff as additional resources for the team (e.g., the secretaries)	To involve them in the coordination and planning of this project as they know the corporate culture better than we do.
Risk		How to avoid it
1	Limited human capital	Bringing Chileans to Peru not to take them away from their responsibilities in Peru. To have a schedule.
2	The overestimation of the OM in Chile	Wider evaluation from the Peruvian team to confirm his capabilities.
3	Tecport can't afford the implementation	To budget every step and communicate it with the client for confirmation.
4	The new Equiport's General Manager attitude towards this project.	Make sure we are present in the meeting of transference of positions to ensure this project is carried over.
5	Conflict in knowledge between Peru and Brazil transferring to Chile	To involve the Brazilian subsidiary from the planning stage.

8.2.1 KSF for the Implementation Process

It is understood that the solution may take various directions and the team will not be accessible during the implementation stages. However, some enablers and risk have been analyzed to prepare and create awareness for Tecport, for the possible events that can jeopardize or facilitate the success of the integration system. It is paramount that Tecport

understands that the following five factors are critical to the success of the proposed solution: (a) employees are effectively utilizing the system, (b) understand the purpose, (c) apply the step-by-step process proposed, (d) receive organizational support, and finally (e) recognize that each accurate internal step taken will externally increase overall customer satisfaction.

Enablers.

The commitment to change. It is believed that Tecport's CEO recognized the inefficiency, imbalance and redundancy within its operation and how these actions are costing the firm in terms of time and resources. Thus, he reached out to the team for an external view. Mr. Alejandro's willingness to work with the consulting team and management disciple, despite his parallel multiple responsibilities and meetings show his total commitment to success of the project. The consulting team estimates that his attitude toward the proposed change will boost the implementation of this solution, which he believes is the next big step for the growth and sustainability of his family business.

Strategic patience. Changes within organizations, specially in corporation located physically in different countries represent is not an easy task. At first, results may not come up evident, but it will be needed an strategic patience to treat mistakes with the best mood or accept non-responses as challenges and not as problems. The companies' GM's must be always aware of their reactions towards the personnel throughout the implementation process and the early stages of the new era of the BPM system.

Superlative communication skills. It has been assessed that Tecport's GM is exceptionally passionate about the success of this proposed solution especially in terms of communication. As a result, it is believed that he can effectively communicate these changes appropriately to his employees. This particularly is an added advantage as Mr. Alejandro was the main contact through the project lifespan, he understands the reason for each component

of the proposed solution as well as the key performance indicators required to measure the success of the implementation plan and fulfillment.

Easy integration. The proposed solution has been packaged in such a manner that it can be easily transferred into the cloud to prevent loss. Additionally, it can simply be accessible to Tecport's other subsidiaries in Chile and Brazil. By doing so, General Managers can conveniently access the progress of one another and the Gantt Chart creates a manageable format where employees are pushed in both performance and in delivery, which will be done indirectly in a subtle manner. Additionally, the flat organizational culture allows for smooth implementation of these process.

Report access. The team will be inaccessible in the implementation stages; however, detailed information and guidelines have been composed. Tecport can regularly fall back on this report in the event of uncertainty to aid clarity at any time. Although the report is not in the local language, all Tecport employees communicate clearly and effectively in the English language as determined during the interview phase of each key employee.

Zero financial cost. In the preliminary stages of assessing the problem, Tecport made known its financial constraints on the proposed solution. The team delivered on developing a solution where the financial cost is nonexistent while being resource management conscious. This breaks the barrier of budget constraint at all stages of the implementation phase and certainly push for progress as it meets the client's fundamental request.

Risks.

General Manager misunderstanding. Mr. Alejandro's communication skill is admirable, however, one must understand that there is always the possibility that one of the other two General Managers may not completely understand the use of the proposed solution. Considering that these GM's were not present at any of the meetings at the Tecport office where the consultant team were present. This risk can be controlled by Mr. Alejandro

coherently and consistently confirming the progress of system with each subsidiary during scheduled Skype meetings, the ability to monitor the progress will prove crucial to the success of the solution.

Misconceived ideas. Employees may not be able to explain to the new recruit the essence of using this process even after communicating the essence. Change is a state of mind that cannot be forced, therefore employees discontinuing the use of this proposed system and utilizing personal systems will make it difficult to monitor and integrate. Employees may decide to use their own format and then reluctantly make use of the appropriate system. Engaging in this type of behavior may lead to inaccuracy due to oversight. This can be avoided by the GM's of the companies taking out time to access each employee state of mind to the proposed change and taking the appropriate actions to deal with each case, which is relatively visible due to the size of the firm.

Underestimation of cultural differences. So far Tecport's GM believes that culture is not an issue to attend in this case of study, as Latin America should be similar in terms of values, beliefs and behaviors. However, as it has been analyzed, there are some features that are worth taking into consideration to guarantee the right implementation of the BPM system in all the Tecport's branches. As the actual thinking in Tecport, this issue represents a risk for the organization. However, it should not be hard to mitigate as there is physical presence of both owners of the Corporation in the main branches.

Timing. The team recognizes that the timing of this project may be in conflict with the arrangement of the new subsidiary Tecport Chile as well as the GM's handover to a new General Manager in Peru. It may become somewhat challenging for him to monitor the progress since he is the most knowledgeable about the system, delegating this commitment at its early stages can bring the proposed solution to abrupt halt. It is advised that the Pacific

GM keeps this in mind as these activities start to take place, a constant reminder of the need for him to primarily take charge in the early stages will clear all ineffectual possibilities.

Step skipping. In order for the solution to work effectively, all users must be aware that each step must be followed ceaselessly as they are all aligned together. The concern is that some employees may assume that certain steps can be ignored or procrastinated upon without it affecting the overall performance of the system, by doing so it becomes problematic to understand and integrate at a future date. Users must recognize that the value of the system is not solely for the current user, but for the entire firm. This way, any new user can easily transition and carry on with the system. The use of the BPM tools should not be disregarded as it will help in measuring and improving collaboration and workflow processes. It is believed that once Mr. Alejandro communicates and monitors the need for change into the company's culture, employees will follow each preliminary and routine step while being time conscious.

Adaptability. One significant risk with the proposed solution is the ability to swiftly adjust to this system as there is no preliminary sample to follow. Proposing this new system at the same time the new recruits are settling into Tecport may cause a down turn on productivity since current employees will now only be familiarizing themselves with the new system. In order to avoid the likelihood of this event, employees are advised to take out each day to revise this system and also refer to this report when in doubt.

Limitations. Tecport LA is still a relatively small organization regardless of the branches owned. The solution provides a standard procedure for all subsidiaries. At the time when customer portfolio reaches a stage where routine activities become insufficient, at which point Tecport should seek an innovative program package with a moderate budget, to transfer and integrate operation. With careful consideration it has been evaluated that this proposed solution does not have any significant limitation that have not been explored within

the risk analysis above. Taking into account the scale of the determined problem and client requirement particularly the financial cost, the projected solution is the most satisfactory solution for Tecport current size and operation. This report provides detailed implementation process for the transferring and implementing desired knowledge, as consultant will be inaccessible after proposing solution.

As a summary, the key success factors identified for the implementation plan are five major enablers and five major risks. These are shown in Table 11, and their correspondent analyses have been developed in this chapter. All these ten success factors must be substantially communicated to the Tecport LA's staff as what is expected and not expected from each of them. Needless to say, they must be taken in consideration throughout the whole implementation process, and reminded to everyone, as some of them could be preferably avoided.

Table 11
Enablers and Risks for the Implementation Plan's success

Enablers	Risks
The commitment to change	General manager misunderstanding
Strategic patience	Misconceived ideas
Superlative communication skills	Underestimation of cultural differences
Easy integration	Timing
Report access	Step skipping
Zero financial cost	Adaptability

8.3 Conclusions

The implementation of the BPM system into Tecport's activities must be done in a certain order of timing. Preliminary activities are to be done first to establish a firm foundation for the BPM system to be initiated. Routine activities must also be followed closely so that the BPM is being used to its fullest potential and that employees are truly

taking advantage of its uses. The most important conclusion for the preliminary activities is that at least the key positions in each subsidiary and the headquarter must be involved, so no one feels uncomfortable being imposed with a system they do not know in advance. As for the routine activities, the most important issue is to do a follow up that the BPM system is being effectively and completely used. Specially at the beginning, people in their nature feel resistance for changes and prefer the status quo.

An important conclusion of these chapter is that the leadership of the Sarria brothers and the good relationships among peers, are essential to create synergies in constructing the BPM from the beginning without the feeling of extra-control and aim of criticism. As explained in this chapter, communication skills play a decisive role, as this implementation is not a tool to throw individual freedoms away and stop innovation, but a room to develop professionally and as an organization in an organized way.

Additionally, the determined enablers, risks and limitations addressed in this report should aid Tecport in reaching the desired milestone at each stage of the plan as the most probable events have been determined and aided with effective solutions. These factors will allow key personnel to be on check at all times as their involvement is paramount to the success of the proposed strategy. As Tecport continues to expand its portfolio, keeping a keen eye on employees use and backup of the system will prove vital for future integration into the new subsidiary and the innovative technology system itself. A follow up of that the enablers are being enhanced and the risks mitigated is essential to guarantee a proper use of the system.

Chapter IX: Expected Outcomes

9.1 Medium and Long-term Outcomes

After implementing the proposed solution, a number of expected outcomes is expected to, overall, improve the performance at Tecport and begin increasing assets while decreasing liabilities such as accounts payable. An analysis of the implementation process has enabled the estimation of short-term and long-term outcomes in five areas in terms of the implementation of a Business Process Management (BPM) system. These key areas are: (1) distributed knowledge, (2) cost reduction, (3) e-commerce platforms, (4) improved Supply Chain Management, and (5) accurate demand forecasting. Moreover, this analysis has provided an additional five immediate expected outcomes, which are: (1) well-trained staff in Valparaiso office, (2) efficient operations at Tecport Chile, (3) improved overall performance, (4) effective communication between offices, and (5) capacity for managing change.

9.1.1 Distributed knowledge

The first and foremost expected outcome for the proposed solution is an achieved distribution of knowledge. An effective distribution of knowledge will ensure that the technical skills and processes required for each position, as well as the knowledge for Tecport culture, are effectively transferred to the new office and Chile and throughout the entire organization. It is important to note once again that these are the three key components of knowledge intended to transfer: (1) technical skills (e.g., the mechanics and specifics of port machinery), (2) knowledge of processes (e.g., taking orders, drafting quotations, and managing client needs), and (3) organizational culture (e.g., differentiation from the competition and the value of providing customers with superior service).

Medium-term outcomes of distributed knowledge. Knowledge is transferred to Tecport Chile swiftly, meaning not much time involved with distributing the knowledge.

Besides, Alejandro need not travel back and forth between Lima and Santiago to transfer knowledge and monitor the new office in Valparaiso. Finally, the new office will function efficiently and not burden the offices in Peru and Brazil with issues regarding technical skill and business processes.

Long-term outcomes of distributed knowledge. Tecport Brazil, Tecport Chile, and Tecport Peru have an evenly distributed amount of knowledge that permits each to operate effectively on their own as well as with one another when necessary. Besides, cohesion between offices permits a non-hierarchical structure of decision-making where individuals in each position are capable of making decisions on the spot and managing challenges when they arise.

9.1.2 Cost reduction

In terms of cost reduction, the implementation of a BPM system should be able to limit the costs of transferring knowledge to the individuals working at Tecport Chile as well as gradually reduce the costs of labour.

Medium-term outcomes of cost reduction. A decrease in support from Tecport Peru will likely reduce the costs since there will be less of a reason for Alejandro or a member of staff to travel to Chile or for one of the new employees in Chile to travel to Peru for training purposes. As shown in Table A.1, travel expenses have increased since the internationalization of Equiports, going from S/. 41,480 in 2013, to S/. 242,174 in 2014, to S/. 285,477 in 2015. These expenses have been estimated to drop in 50%, as half of the flights are to verify sales and control cash flows.

Long-term outcomes of cost reduction. In terms of long-term outcomes of cost reduction, the major focus is the reduction of time spent on training/assisting or transferring knowledge – this reduction will allow the OM/ASM and the SPM to spend less time searching for information and more time increasing business (spending more time working

on improving customer base). Numerically, it is estimated that the time searching and communicating information is 2 hours out of 8 working daily hours. The estimation is that in the first six months, this time will reduce to 1 hour and will drop to 30 minutes in 1.5 years. This implies a reduction of the payroll in 12.5% in the six months and of 25% in the first 1.5 years.

9.1.3 E-commerce platforms

The utilization of e-commerce platforms will permit for an much smoother and easy way of doing business. The sales of parts on e-commerce platforms would significantly reduce the amount of time spent searching for information on parts and placing orders outside of virtual platforms. According to Spathis and Constantinides, “the technology progress in information technology and the increasing use of Internet in everyday business has created possibilities for software based supply chain management. There are several developers originating from different schools such as ERP, application integration and mathematical supply chain optimization. Still the basic objectives remained the same: to lower inventory levels and enhance customer service via improved agility of manufacturing” (Spathis and Constantinides, 2003). This argument supports the importance of integrating information technology into the workplace. The use of an e-commerce platform will enhance customer service through improved agility in ordering and delivery processes.

Medium-term outcomes of e-commerce platforms. All products have an ID that is based on the brand, supplier, and type of product – this will make it more simple for new employees at Tecport Chile to access information and make sales via virtual platforms. Access to e-commerce platforms will reduce time spent searching for information and will create the opportunity for more time spent attaining a new client base, attending to client needs and ensuring that top-quality customer service is achieved.

Long-term outcomes of e-commerce platforms. The use of e-commerce platforms will set a standard for the future of doing business – it will create opportunities to expand further processes, such as client services or data collection into virtual platforms, or even big data and predictive analytics at a major scale of the business. In the long-term, the reduction in time spent searching for information and placing orders outside of virtual platforms will result in: a greater customer based (from time spent developing and maintaining client relationships), less time and resources spent obtaining help from other offices (less problem-solving between offices).

9.1.4 Improved supply chain management

Supply chain management (SCM) is an integrative philosophy to manage the total flows of a distribution channel from suppliers level to production, distribution and the ultimately the end customer (Petri Helo Bulcsu Szekely, 2005). The use of a BPM system will enable a more fluid supply chain and thus result in an improvement in procurement and delivery; all resulting in improved customer satisfaction.

Medium-term outcomes of improved SCM. An improvement in supply chain management will allow for a smoother integration of the new office in Chile (in terms of integrating as a new part of the Tecport organization).

Machinery and spare parts will be much easier to access (both in terms of finding information and in placing orders).

Long-term outcomes of improved SCM. Like the implementation of an e-commerce platform, an improved supply chain will result in a long-term reduction in resources allocated to information seeking, ordering machines and parts both physical and virtual (inventories, lead stocks, etc.), as well as in attending to client needs.

9.1.5 Accurate demand forecasting

The BPM will help manage current and future business processes and will certainly assist in forecasting demand. Once the BPM has been in place for a significant amount of time, it will be possible to analyze data (e.g., sales, spare parts ordered, and issues that have arisen) and therefore help to determine future outcomes. In order to promote future success at Tecport, it is crucial that the organization be able to measure correctly. If measurement is not possible, it will not be possible to continually improve and manage information.

Medium-term outcomes of accurate demand forecasting. The ability to accurately forecast demand will allow the new office in Chile to operate more efficiently by being able to take advantage of market trends through appropriate planning – understanding the market and future demand will result in more efficient processes.

Long-term outcomes of accurate demand forecasting. The collection of past data, after a significant amount of time has past since the implementation of a BPM system, will enable for the continual improvement in forecasting and information management. The collection of data should allow for precise forecasting that will result in Tecport's ability to recognize patterns and predict market trends – all resulting in more efficient business as well as customer service. It has been estimated that the customer loyalty will increase in at least 25% in the first year and up to 50% in the first three years.

9.2 Immediate expected outcomes

In Table 12, five immediate expected outcomes are shown, which go from understanding, conveying, implementing, monitoring and feeding the BPM solution proposed. Each one of the immediate outcomes has three major indicators -qualitative or quantitative ones-, which are the concrete positive impact Tecport LA will experience.

Table 12

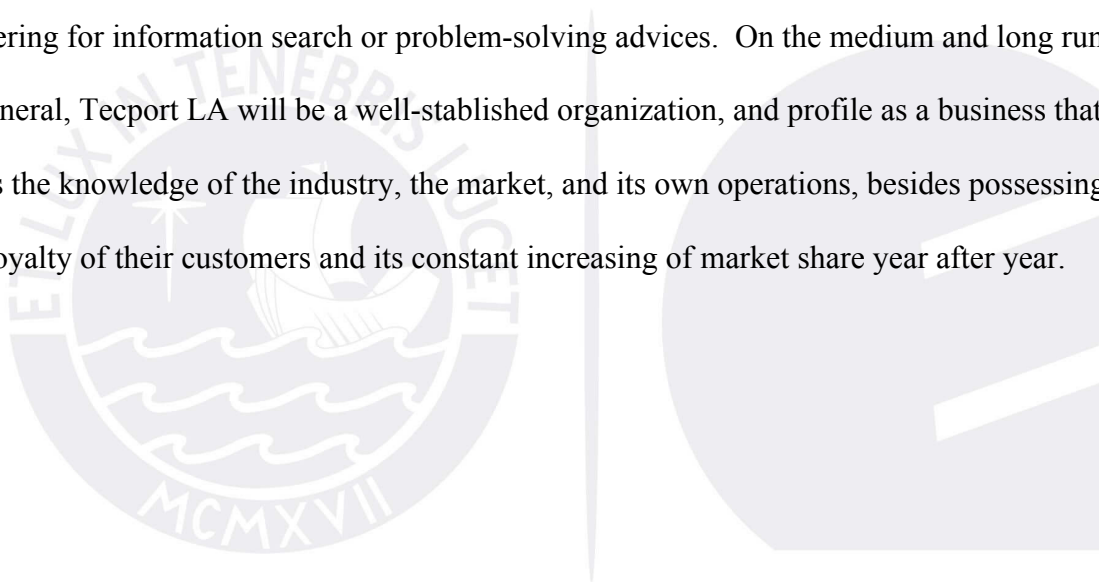
Immediate Expected Outcomes for BPM and Indicators

	Outcome 1	Outcome 2	Outcome 3
Well-trained staff in Valparaiso office	The new office in Chile requires very little to no supervision from Tecport Peru and Brazil.	Attain and maintain Client Relations: The new offices is able to establish relationships with new clients and maintain them through providing optimal customer service.	Excellent team management: Tecport Chile team works efficiently together through maintaining work ethic and support for each other in a quality work environment.
Efficient operations at Tecport Chile	Meets sales expectations: Forecasted sales are met through obtaining a client base and selling and renting machinery.	Attend to Client needs: Client needs are met promptly and managed according to the Tecport standard.	Knowledge of processes and culture is transferred to the new office.
Improved overall Performance	Return on initial investment in Tecport Chile.	Gradual decrease in accounts payable and overall liabilities and increase in profit and business development.	BMP and knowledge transfer to Tecport Chile improves Tecport performance and cohesion.
Effective communication between offices	Offices work together to optimize Tecport performance.	Communication is maintained between roles (e.g., the SPM in Chile maintains communication the SMP in Peru).	Tecport Chile communicates significant problems with Tecport Peru and Brazil if they cannot solve them on their own.
Capacity for managing change	Tecport Peru and Tecport Brazil are not negatively effected by the changes in the overall organization.	There is a smooth transition in opening the new office.	New and innovative business solutions and processes are effectively transferred between offices.

9.3 Conclusions

This chapter analyzed five medium and long-term outcomes, as well as five immediate ones. This differentiation is important due to the very near opening of the new office in Valparaíso, Chile. Besides, both groups measure different aspects of the business. The first group is composed by measurable and more tangible outcomes. However, the immediate ones are more tacit and related to the improvement of personal and inter-personal skills.

The immediate outcomes are focused on a smooth opening of the new office and will allow to start collecting the implicit information from the very beginning. Also, they aim to establish good relationships among the peers based on efficient conversation and lack of bothering for information search or problem-solving advices. On the medium and long run, in general, Tecport LA will be a well-established organization, and profile as a business that owns the knowledge of the industry, the market, and its own operations, besides possessing the loyalty of their customers and its constant increasing of market share year after year.



Chapter X: Conclusions and Recommendations

10.1 Conclusions

Conclusion 1. This project has revealed that Latin America is capturing superior attention in a global environment, provoked by political and social stability, in a situation where financial and economic crisis is prevailing in developed societies. New international trade businesses continue to emerge, increasing the flow of operation and creating an active growth specially in the Pacific port industry which connects to China. The key players, Mexico, Peru, Brazil and Chile, are sourcing for greater technology and better port infrastructure design. In term of this macro-environmental situation, Chile and Peru are the least corrupt and the ease of doing business is relatively high for Latin America, while Brazil and Mexico currently suffer from corruption and bureaucracy, which is significantly affecting the port industry. The Pacific Alliance between Mexico, Peru, Chile and Colombia, as well as the increase in free trade agreements has allowed for greater import and export activities especially from the United States. Decrease in unemployment, the poverty line, and an increase in education is the current trend in these countries with the exception of Brazil. In the current scenario where exports are growing, and increased investments into the port and technology sectors are being detected, Tecport has the opportunity to establish itself as a qualified expert in heavy port equipment since they are the exclusive distributors of a reputable and quality European supplier in this arena.

Conclusion 2. In regards to moving into the port industry itself, the analysis of the Porter's five forces demonstrates that the greatest pressures are from competition in the market and the power of the buyers. Owing to the fact that the market is full of competitors with similar products and not many are sold each year, this gives leverage to buyers and they have higher bargaining power due to the number of options available to them. Tecport faces this stiff competition and they differentiate themselves from other leading port machinery

companies through their commitment to services that other companies do not provide. Although this represents a non-favorable case, due to threats of the five forces, global expansion and preparation for development into new markets is the strategy they have chosen.

Conclusion 3. The literature reviewed in this thesis allowed to differentiate corporate knowledge into three categories: personal, impersonal, and interpersonal. This typology is the basis to understand and plan how to manage it. Also, authors suggest that technology, culture and behavior, and leadership are the three pillars for knowledge management. The first one shows the largest significance in SMEs, according to an empirical study. However, further studies address the danger of only focusing on technology. For instance, corporate culture will determine to what extent employees are willing to share information. Furthermore, problem-solving techniques point to design a customer-centric plan, in which the Business Process Management systems appears to be the most accurate.

Conclusion 4. Numerous distinguished incentives are being provided by the Chilean government as a tactic to draw foreign direct investment into the port industry. Tecport's entry into Chile may be considered an assertive and strategic move, its timing to invade this market is accurate, thus Chile in the near future may very well become Tecport's largest market share. On the internal side, Tecport has many important strengths that could open doors to new opportunities. Among this, it was especially important to analyze the non-conventional reduced labor capital. The Corporation's decision to set this expansionary strategy with very limited human resources, is a learning point for businesses, which usually grow in labor force before growing in scope.

Conclusion 5. An important aspect of analysis has been the utilization of the Hofstede framework to assess the cultural differences between the Chilean, Brazilian and Peruvian societies and how culture reflects in their values and behavior. Hierarchical structure is fixed,

well defined and regard for authority is well respected in the three countries. In terms of masculinity, Peru and Brazil share a common view where competition is a dominating factor and the pressure of being at the top of the food-chain is apparent. On the other hand, Chile exhibits the opposite behaviour with a high level of femininity nature. Indulgence in Brazil is relatively higher than that of the other two countries. An insight on these behavioural patterns will aid Tecport in making better decisions for its existing market and its future in the new venture. This cultural differences across Latin America has been assessed as a risk for the implementation of the BPM proposed, if it is sub estimated by Tecport's top management.

Conclusion 6. Following a criteria based of factors including the timeframe in which this project could be completed and yield results, a feasible scope of the project, the client's preferences and lastly, the overall advantages of each possible solutions, the alternative solutions to the problem Tecport LA is facing, were assessed. These solutions including transferring of human capital to directly bring knowledge to other offices, developing a manual of responsibilities to clearly define roles within the organization, compile technical information in a Cloud service to be easily accessed when needed, and improving previously attempted CSS networks such as the blog/forum that never was implemented in the organization.

Conclusion 7. Considering the long period of time is required for implementing the whole strategic business intelligence plan, the proposal is focusing on the BPM development in the short term. The inefficient implementation of ERP and other management tools will be improved during the BPM design. Firstly, the value stream management structure has been developed to examine all the steps currently embedded in their operation, which will support managers to determine the key emphasis in work steps. Then, the detailed mappings of vital work steps (including: customer development and customer relationships, inquiries and quotations, negotiations, deals and delivery, management of suppliers) work in synergy. The

detailed guidance will gradually build up a managerial database which will also contribute to support cross-regional knowledge transfer in the long term.

Conclusion 8. Next, how to implement the BPM system into Tecport was discussed. Implementation activities are to be carried out in a step-by-step manner and have been categorized either as preliminary activities done as preparation to integrating the BPM system, and routine activities which are further distinguished as analysis activities and evaluations activities. The preliminary activities include initial discussions among management, and data transfer into the system to prepare for usage. Also, the benefits and introduction of the system is to be conveyed to the employees of the company. In terms of routine activities, continuous assessment of KPI's and discussion between offices through weekly Skype meetings will ensure that knowledge of best practices is being transferred. Additionally, trimestral evaluations will ensure that the BPM system is being used to its maximum capacity and that employees are following this initiative. Lastly, costs of implementing the system was considered through estimation of the additional time required to prepare the start and maintenance of this system.

Conclusion 9. Once the BPM system begins to reach its maximum capacity and serve its purpose in developing and conveying business processes, the expected outcomes were analyzed. Overall, it was ascertained that the BPM system would improve the overall performance at Tecport and inevitably lead to an increase in assets and decrease in liabilities; this would happen by maximizing resources such as time spent by employees completing tasks as well as money spent on training and problem solving. Furthermore, an analysis of the implementation processes enabled the estimation of short-term and long-term outcomes in five key areas as well as five additional areas, as discussed in Section 8. The five key areas (distributed knowledge, cost reduction, e-commerce platforms, improved supply chain management, and accurate demand forecasting) are all indicators that support the notion that

the BPM system will be the most effective way in sharing and transferring knowledge in the current context of beginning operations the new subsidiary, Tecport Chile. Moreover, the BPM system will also prove effective in future endeavors of distributing knowledge and problem solving. It is expected that the BPM will be an innovative and invaluable tool at Tecport and that it will lead to more sophisticated data management systems in the future for Tecport.

10.2 Recommendations

The following recommendations are indented to assist Tecport Latin America in the decision making of the organization's knowledge management system, in the medium and long term.

Recommendation 1. For businesses expanding globally, maintaining conformity among the branches is important to maintain the identity of the culture. In order to do this, a recommendation to Tecport LA's CEO is to have a set structure already developed within the headquarters before expanding internationally. This will minimize potential problems of unaligned values that may emerge in the new office if no structure is given prior. Furthermore, by having business process management in place prior to expansion, this will provide a greater ease and effectiveness in assessing and evaluating new branches through benchmarks of existing branches.

Recommendation 2. Once the BPM system has taken effect and proven itself in efficacy, it is recommended that Tecport LA's CEO considers broadening the scope of integrating controlled organized processes. An all-in-one system that incorporates the non-operational areas of Tecport, such as the administrative or marketing areas, could significantly smoothen the future distribution of knowledge and make it easier to analyze and simplify processes. Moreover, an all-in-one system would make it much easier when hiring new employees and training them in their respective specialties.

Recommendation 3. In the future, once the BPM has displayed productive outcomes, it is recommended to Tecport LA's CEO to integrate the system with a virtual platform. Tecport currently possesses an ERP system (Microsoft Dynamics), which would be capable of managing the BPM system as a satellite or activating the same ERP's secondary packages. Through this integration, one business-management system would house the core informational components of Tecport. Not only would it effectively manage data on such areas like finance and accounting, but it would also manage information on business processes (which would be accessible by Tecport employees who wish to gather necessary information pertaining to their key functions or challenges at hand). Through the development of the BPM into the Tecport ERP, Tecport employees would be able to more efficiently access data to solve problems and research data that could help make their job easier. All of this resulting in saved time and resources and an overall increase in productivity.

Recommendation 4. Through analyzing the KPI's provided in the BPM system, this may give Tecport LA a clearer direction of whether diversification of its products or market penetration is the most appropriate strategy to take. As previously discussed, Tecport LA faces stiff competition from other players in the industry especially due to the products being quite similar across all of these brands. Currently, Tecport LA differentiates itself from competition through its high quality services. Although entering the market of Chile in a difficult time to have an early strategic position, the future of the port machinery industry may require Tecport to consider greater differentiation to maintain competitive in all markets. As discussed with Tecport's GM, rental services and selling/renting refurbished machines may differentiate the company more and allow it to capture more of the competitive market.

Recommendation 5. The BPM could be reinforced by an Enterprise Feedback Management (EFM). This is a powerful tool, which consists on collecting, analyzing and

acting based on the customers' feedback. This tool goes beyond customer-satisfaction research, it implies becoming customer-centric and managing the business as a growing loop fed by the customers' opinions. Some of the benefits of this tool are: higher customer interaction, improved customer loyalty, and deep insights into customer behaviour.

In the near future, within this revolution of EFM technology, it would be essentially helpful to have already implemented a routine practice of capturing customer input. What comes next would be near-instantaneous broad recognition of experience performance across several channels: e-mails, webpage, apps, mobile calls, SMS, or what best would suit the national, industry and corporate cultures.

Recommendation 6. Tecport LA could set up its own BPM system into the dealers' management system. This way, Tecport LA is taking a forward step towards the customers (vertical integration forward) in the rest of the countries it is not directly operating. In the short-term, the effects would be of increasing revenues, consequently stronger partnership between Tecport and its distributors. In the medium-term, Tecport would have a wider domain of the Latin American market. Furthermore, the *Tecport style* is the base for this business to be franchised and being able to expand beyond the Latin American borders, for instance, to Africa as a future strategic move.

Recommendation 7. Tecport LA's success as it internationalizes can be highly attributed to the manner in which knowledge is managed and integrated within the subsidiaries. Applying the pull learning model after a successful training session for the new Chile employees will effectively support the knowledge transfer and sharing solution determined by the consulting team. This will create a centralized, bottom-up concept where Tecport employees can access and understand information being shared at whatever time desired within all subsidiaries. The pull model emphasizes performance rather than regular training, in this case employees learn by doing. In addition, Tecport LA can cut down on

time and cost. Using this approach employees are learning on demand, highly susceptible to change and desire for innovation, active and overall are result driven. Adopting a learning culture (pull model) in Tecport will mean that the GM's will provide all employees with purposeful, applicable and on-demand access to the expertise and dexterity needed to execute tasks. In doing this sustainable growth will be experienced in job performance, employee retention, innovation and sales revenue.

Recommendation 8. The two GM's of the Equiports and Tecport Brazil –the Sarria brothers- possess the vast majority of the knowledge regarding the Tecport culture. Regardless the BPM for implementation, it is imperative for Mr. Alejandro to travel to the new Chilean OM in the early stages before operations fully commence. The success of the new operations in Valparaiso heavily relies on the efficiency of this new manager. Therefore, Alejandro's travels to Chile to transfer knowledge and build relationships will be a practical and advantageous start for the new subsidiary.

Recommendation 9. According to Tecport's GM, there are few policy-driven or cohesion-driven programs developed in the company, for instance, a program of economic incentives based on the achievement of the projected goals. The recommendation to Tecport LA's CEO is to set up a reward and punishment mechanism in order to support the upcoming BFM program, to monitor employees to implement the system, and to develop the systematic database rapidly. Also, the rewards and punishments mechanism will develop a motivation sense of culture that contributes to the formation of a stronger corporate culture. From this cultural perspective, also ceremonies are seen as a cohesion-driven aspect of group culture that is worth being developed.

References

- Atlantic Council. (2016). *Pacific Alliance 2.0 - Next Steps in Integration*. Retrieved from <http://publications.atlanticcouncil.org/pacific-alliance/>
- Ashraf, A. A. (2016). Total Quality Management, Knowledge Management and Corporate Culture: How do they synchronized for performance excellence. *Pakistan Journal Of Commerce & Social Sciences*, 10(1), 200-211.
- Association of Equipment Manufacturers. (2016). *Bolivia seeks investors for US\$1bn Peru port overhaul*. Retrieved from <https://www.aem.org/news/march-2016/bolivia-seeks-investors-for-us1bn-peru-port-overhaul/>
- Bartlett, C., & Wozny, M. (1999). *GE's Two-decade Transformation: Jack Welch's Leadership*. HBS No. 399-150. Boston, MA: Harvard Business School Publishing.
- Boske, L., & Harrison, R. (2016). *The Dynamics of U.S.-Asian-South American Waterborne Trade and the Panama Canal Expansion: Their Anticipated Impacts on Texas Ports and the State's Economy*. Austin: Center for Transportation Research. Retrieved from <http://library.ctr.utexas.edu/ctr-publications/0-6690-1.pdf>
- Brady, K., Lowell, L. (2014). Theory vs. Practice: A Study of Business Consultants and Their Utilization of Corporate Culture in Daily Practice. *Journal of Practical Consulting*, 5(1), 1-22.
- Breard, P., & Molina, E. (2016). *Latin America Regional Outlook*. Toronto: Scotiabank Economics. Retrieved from http://www.gbm.scotiabank.com/English/bns_econ/latin.pdf
- Carrasco Alva, M., Castillo Carbajal, K., Morán Huanay, J., Riva Zaferson, F., & Sarria De La Cotera, A. (2016). *Planeamiento estratégico para la empresa equipos portuarios SAC (Equiports)* [master thesis]. Pontificia Universidad Católica del Perú, Lima, Peru.

- Carrasco Alva, M., Castillo Carbajal, K., Morán Huanay, J., Riva Zaferson, F. & Sarria De La Cotera, A. (2016). *Equipos Portuarios: to live or to let die* [case of study]. Pontificia Universidad Católica del Perú, Lima, Peru.
- Christopher, M. (2011). *Logistics & Supply Chain Management* (4th ed.). Edinburgh, UK: Pearson.
- D'Alessio Ipinza, F. (2014). *Planeamiento estratégico razonado: aspectos conceptuales y aplicados*. Lima: Pearson, 2014.
- De Martino, M., Errichiello, L., Marasco, A., & Morvillo, A. (2013). Logistics innovation in Seaports: An inter-organizational perspective. *Research In Transportation Business & Management. Port Performance and Strategy*, 123-133. doi: 10.1016/j.rtbm.2013.05.001
- Dobrai, K., Farkas, F., Zsuzsa, K., & Póor, J. (2012). *Knowledge Transfer in Multinational Companies – Evidence from Hungary*. *Acta Polytechnica Hungarica*, Vol. 9, No. 3. Retrieved from http://www.uni-obuda.hu/journal/Dobrai_Farkas_Karoliny_Poor_35.pdf
- European Commission. (2015). *Competition in maritime transport*. Retrieved from https://ec.europa.eu/commission/2014-2019/vestager/announcements/competition-maritime-transport_en
- Grebow, D. (2015). Pull, Don't Push, Employee Learning. The Performance Improvement Blog. Retrieved from http://stephenjgill.typepad.com/performance_improvement_b/2015/06/pull-dont-push-employee-learning.html
- GLPI - Gestionnaire libre de parc informatique. (n.d.). Retrieved from <http://www.glpi-project.org/spip.php?article43>

Hofstede, G., Minkov, M., & Cultures and Organizations (2010): Software of the Mind.

Revised and Expanded 3rd Edition. New York, NY: McGraw-Hill. Retrieved from <https://geert-hofstede.com/national-culture.html>

Hydrant, S. (2016). *Tenders for new transport projects to expand capacity in Peru*. Oxford Business Group. Retrieved from <http://www.oxfordbusinessgroup.com/overview/moving-along-raft-tenders-new-projects-and-upgrades-expands-capacity-across-sector>

Hydrant, S. (2015). *Port infrastructure is getting a boost from new investment*. Oxford Business Group. Retrieved from <http://www.oxfordbusinessgroup.com/analysis/port-infrastructure-getting-boost-new-investment-0>

Inkpen, A. C., & Dinur, A. (1998). Knowledge Management Processes and International Joint Ventures. *Organization Science*, (4). 454-469.

International Data Corporation (n.d). *Corporate Knowledge Data and Statistics*. Retrieved from <http://www.idc.com/tracker/showtrackerhome.jsp>

Italgru History. (n.d.). Retrieved from <http://www.italgru.it/en/history>

Kalmar in Brief. (n.d.). Retrieved from <https://www.kalmarglobal.com/about-us/kalmar-in-brief/>

Khan, S. R., & Khan, I. A. (2015). Understanding Ethnicity and National Culture: A Theoretical Perspective on Knowledge Management in the Organization. *Knowledge & Process Management*, 22(1), 51-61.

Kouzes, J. M., & Posner, B. Z. (n.d). *Brindar Aliento : La Guía del Líder para Recompensar y Reconocer a los Demás*. Buenos Aires : Granica, 2005.

KPMG International Cooperative (2014). *Chile - Country mining guide* (20th ed.). Retrieved from <https://www.kpmg.com/Ca/en/industry/Mining/Documents/KPMG-Mining-country-guide-Chile.pdf>

- KPMG International Cooperative (2016). *Peru - Country mining guide*. Retrieved from <https://www.kpmg.com/Ca/en/industry/Mining/Documents/Peru.pdf>
- Leistner, F. (2010). *Mastering organizational knowledge flow: how to make knowledge sharing work*. Hoboken, NJ : Wiley, 2010.
- Management Accounting Committee of IMA (1999). *Tools and Techniques for Implementing Integrated Supply Chain Management*. Institute of Management Accountants and Arthur Andersen LLP.
- Mei-Hsiang, W., & Tarng-Yao, Y. (2016). Investigating the success of knowledge management: An empirical study of small-and medium-sized enterprises. *Asia Pacific Management Review*, 21(2), 79-91. doi: 10.1016/j.apmr.2015.12.003
- Petri Helo Bulcsu Szekely (2005). Logistics information systems. *Industrial Management & Data Systems*, 105(1), 5–18.
- PFI Brazil 2015 (2016). Brazilian terminals prepare for next generation vessels. Port Finance International. Retrieved from <http://portfinanceinternational.com/features/item/2029-brazilian-terminals-prepare-for-next-generation-vessels---pfi-brazil-2015>
- Plattner, H., Meinel, C., & Leifer, L. J. (2011). *Design thinking understand - improve - apply*. Heidelberg: Springer. ISBN 978-3-642-13756-3. doi: 10.1007/978-3-642-13757-0.
- Port Strategy (2015). *Port profile: Valparaiso*. Retrieved from <http://www.portstrategy.com/news101/world/south-america/valparaiso-profile>
- Porter, M. (1979). How Competitive Forces Shape Strategy. *Harvard Business Review*, 57 (2), pp. 137-145.
- Quandl (2016). *GDP as Share of World GDP at PPP By Country*. Retrieved from <https://www.quandl.com/collections/economics/gdp-as-share-of-world-gdp-at-ppp-by-country>

- Rao, M. (2012). *Knowledge management tools and techniques: Practitioners and experts evaluate KM solutions*. Taylor and Francis. doi:10.4324/9780080478869
- Reuters. (2016). *Mexican government says poverty rate rose to 46.2 percent in 2014*. Retrieved from <http://www.reuters.com/article/us-mexico-poverty-idUSKCN0PX2B320150723>
- Riggs, D., & Robbins, S. (1998). *The Executive's Guide to Supply Management Strategies: Building Supply Chain Thinking into All Business Processes*. New York: AMACOM.
- Robertson, J. (n.d.). 10 principles of effective information management. Retrieved from http://www.steptwo.com.au/papers/kmc_effectiveim/
- Salivaras, C. (2014). *Latin America – An overview*. Retrieved from <http://www.standard-club.com/media/1557256/latin-america-an-overview.pdf>
- Santander Trade (2015). *Economic and political outline Chile*. Retrieved from <https://en.portal.santandertrade.com/analyse-markets/chile/economic-political-outline>
- Schultz, T. W. (1961). Investment in Human Capital. *American Economic Association*, 51(1), 1-17.
- Schroth, S. P. (2015). Knowledge management. *Salem Press Encyclopedia*.
- Spathis, C., & Constantinides, S. (2003). The usefulness of ERP systems for effective management. *Industrial Management & Data Systems*, 103(9), 677-685.
- Sugitani, K., & Morita, H. (2011). The approach for skill up in five-why for investigating root cause of quality problems. *International Journal Of Data Analysis Techniques And Strategies*, 3(3), 221-240. doi: 10.1504/IJDATS.2011.041332
- Tecport LA. (2016a). *Corporate web page*. Retrieved from <http://tecportla.com/>
- Tecport LA. (2016b). *Manual de Organización y Funciones. Sistema de Gestión de la Calidad Equiports*. Version 3. Lima, Peru: Author.

Tecport LA. (2016c). Estados Financieros de Tecport Latin America. Version 4. Lima, Peru: Author.

Van der Aalst, W., Ter Hofstede, A., & Weske, M. (2003, May). Business Process Management: A Survey. *Series Lecture Notes in Computer Science*, Vol. 2678, pp 1-12. Retrieved from http://link.springer.com/chapter/10.1007/3-540-44895-0_1

Welch, D. E. and Welch, L. S. (2008). The Importance of Language in International Knowledge Transfer. *Management International Review*, 48(3), 319-338

Wang, A., Scarbrough, H., Chau, P., & Davison, R. (2016). *Critical Failure Factors in ERP Implementation*. Retrieved from <http://www.pacis-net.org/file/2005/395.pdf>

World Bank. (2016). *Latin America and Caribbean Overview*. Retrieved from <http://www.worldbank.org/en/region/lac/overview>



Appendix A: Tecport LA's Financial Statements

Table A1

Tecport LA's Income Statement 2013, 2014, 2015 in PEN

	2013	2014	2015
Sales	1,456,786	8,738,766	16,138,566
Sales Cost	1,227,206	7,329,395	14,318,094
Gross Profit	229,579	1,409,371	1,820,472
Operational Expenses			
• Payroll Expenses	67,423	322,083	358,560
• Other Compensations to Staff	20,593	114,070	115,694
• Insurance ESSALUD + EPS	7,664	49,174	28,218
• Other Expenses	2,171	24,036	15,475
• Rentals	21	76,337	65,922
• Public Services	-	1,388	3,773
• Maintenance	6,317	1,455	2,534
• Other administrative Expenses	1,695	8,818	8,770
• Travel Expenses	41,480	242,174	285,476
• Commissions	25,227	361,502	468,670
• Other Sales Expenses	32,183	58,513	96,348
• Work Insurance	436	1,271	2,305
• Other Expenses	647	1,413	1,608
EBITDA	23,716	147,131	367,113
Depreciation from Leasing	-	-	-
Depreciation	-	-	-
Other financial incomes	266	-	756,671
Other financial expenses	6698	57,306	699,593
Net Income	17,283	89,825	424,190

Note. Adapted from “Estados Financieros de Tecport Latin America”, by Tecport LA, 2016, version 4.

Table A2

Tecport LA's Balance Sheet 2013, 2014, 2015 in PEN

	2013	2014	2015
Total Current Assets	1,241,053	2,346,105	4,713,655
Cash and Marketable Securities	29,766	453,412	1,367,116
Commercial Account Receivable (net)	1,209,107	1,784,264	2,732,918
Related Account Receivables (net)	658	-	-
Other Account Receivables	-	-	124,937
Inventory (net)	-	22,557	253,559
Fiscal Credit	-	77,054	235,123
Prepaid Expenses	1,522	8,816	-
Total Non Current Assets	10,125	27,894	2,214,422
Investments	-	-	2,187,300
Machinery and Equipment (net)	8,873	14,592	16,306
Assets acquired by Leasing	-	-	-
Intangibles Assets (net)	1,251	8,932	10,816
Tax Credit	-	-	-
Other assets (net)	-	4,370	-
Total Assets	1,251,179	2,374,000	6,928,078
Current Liabilities	1,153,895	1,736,541	4,181,307
Commercial Account Payables	1,090,097	1,364,028	3,726,403
Related Account Payables	-	297,868	350,224
Other Account Payables	63,798	60,020	35,580
Financial obligation in short term	-	-	7,455
Taxes Payables	-	-	-
Income Tax Expense	-	-	-
Provisions	-	2,523	25,923
Other taxes to pay	-	12,100	35,720
Non Current Liabilities	-	-	-
Long Term Financial Payments	-	-	-
Deferred Income	-	-	-
Equity	97,283	637,459	2,746,771
Capital	80,000	586,032	2,379,322
Additional Capital	-	-	-
Legal Reserve	-	-	-
Minority Interest	-	-	-
Accrual Income	-	-	62,682
Net Income	17,283	51,427	304,766
Total Liabilities and Equity	1,251,179	2,374,000	6,928,078

Note. Adapted from "Estados Financieros de Tecport Latin America", by Tecport LA, 2016, version 4.