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FURTHER DEVELOPMENT OF SUPPLIER PORTAL

Technology and communication
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FOREWORD

This thesis was concluded during spring 2014. It has been done in co-operation with Wärtsilä Global Logistic Services, unit of Material Management. The supervisor from Vaasa University of Applied Sciences was Mr. Pekka Ketola. From Wärtsilä my supervisor was Ms. Terhi Ylisirniö, a Process Development manager from Materials Management unit. I would like to express my gratitude for both of them. The idea for the thesis came up in a conversation with Mr. Lauri Somppi, a Strategic Purchasing manager. And I would like to thank Mr. Somppi for that. Mr. Antti Heikkinen and Mrs. Pirjo Simola have been helping with the online survey and I'm thankful for them. Doing this thesis has been a great challenge and it has provided to me plenty of knowledge and skills which you surely need to have in today´s working life.

In Vaasa 1.4.2014
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ABSTRACT

Author	Oskari Seppälä
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The purpose of the thesis was to develop Wärtsilä Supplier Portal. The developing was done by researching and analyzing the suppliers' feedback regarding the Wärtsilä Supplier Portal. The feedback was collected with an online survey. The results were compared to the corresponding survey results from the previous year to observe the trend of the user satisfaction.

This thesis is divided into three main chapters: company overview, theoretical framework and the feedback. The theoretical framework of this thesis proceeds logically focusing on the topic of the thesis. The main area concentrated was supply chain management, procurement and e-business in general.

Suppliers' feedback was carefully analyzed to see the current status and the future development potential. The feedback from the last year was also utilized in this comparison. This gave a possibility to see what has been the trend of the user satisfaction compared to the previous time period. From the collected and analyzed information plenty of considerable improvement proposals came up. Usage experiences displayed some existing problems. New functions related feedback proposed new functions that could be implemented to the Portal. Communication related feedback and feedback comparison gave us the current status of Portal.

Keywords B2B, Purchasing portal, Services, Development

VAASAN AMMATTIKORKEAKOULU
Kone- ja tuotantotekniikan koulutusohjelma

TIIVISTELMÄ

Tekijä	Oskari Seppälä
Opinnäytetyön nimi	Further Development of Supplier Portal
Vuosi	2014
Kieli	Englanti
Sivumäärä	45
Ohjaaja	Pekka Ketola

Tämän opinnäytetyön tarkoituksena oli kehittää Wärtsilän toimittajaportaalia. Kehittäminen toteutettiin tutkimalla ja analysoimalla toimittajien antamaa palautetta Wärtsilän toimittajaportaalista. Palaute koostui verkkoympäristöön tehdystä palautelomakkeesta ja viime vuonna kerätystä palautteesta. Verkkoympäristöön tehty palautelomake tehtiin osana opinnäytetyötä.

Työ rakentuu kolmesta pääkappaleesta: yrityksen esittelystä, teoreettisesta viitekehyksestä, sekä palautteisiin liittyvästä osiosta. Työn teoreettinen viitekehys etenee loogisesti tärkeimmistä työn aiheeseen liittyvistä ja syventävistä alueista. Nämä alueet ovat toimitusketjun hallinta, hankintatoiminta ja sähköinen liiketoiminta.

Toimittajien palaute tutkittiin huolellisesti nähdäksemme missä olemme nyt ja mihin meidän pitäisi suunnata kehitystä. Viime vuoden palautteet olivat myös mukana vertailussa. Niiden perusteella saatiin tietoa siitä, mikä oli jo kehittynyt edellisestä vuodesta. Kerätystä ja analysoidusta informaatiosta on nostettiin esille merkittävimmät kehitysehdotukset. Nämä ehdotukset löytyvät opinnäytetyön loppupuolelta.

Avainsanat B2B, hankintaportaali, huoltotoiminta, kehittäminen

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1 INTRODUCTION

1.1 Choosing the subject

This thesis is about developing Wärtsilä Supplier Portal. It has been made for Wärtsilä Global Logistic Services, Unit of Material Management. I have been working at Wärtsilä since May 2013 as an operative purchaser. The supplier portal is quite a new tool for Wärtsilä subcontractors and also for me as a purchaser. Choosing the supplier portal as a subject for the thesis was a logical decision, because the supplier portal is a tool between the subcontractor and the purchaser. Wärtsilä wants to develop the supplier tools together with the suppliers in order to create tools that serve both businesses effectively.

1.2 Research Plan

The research of this thesis starts by doing background studies and investigating theoretical literary. Background studies also include making our feedback survey to have information about the user satisfaction concerning the supplier portal. Maybe the most important part of the research was to collect and analyze feedback from the subcontractors. Comparing last year's (2013) feedback to this year's feedback gave a great perspective to what is the trend of the user satisfaction.

1.3 Outcome

The main outcome of this thesis was have many qualified and considerable improvement proposals. These proposals include all kind of improvement ideas, what should be removed, what should be added. As the improvement proposals come from single users, it is important to analyze if it is a user or system issue, in order to create a functioning tool for all users. It is also very critical for us to know where we are going. Analyzing the feedback will tell us that. The outcome

should also be shown on my expertise and knowledge as a purchaser. This will help me to understand different roles in the supply chain management.

2 INTRODUCTION OF THE COMPANY

2.1 Wärtsilä Corporation

Wärtsilä provides complete lifecycle power solutions in the marine and energy markets. Wärtsilä Corporation has been divided into three business areas: Ship power, Power plants and Services and into four human resource areas, including also Industrial operations. As it can be seen in Figure 1., Services is the largest business area of Wärtsilä. The total revenue of Wärtsilä in the year 2012 was 4,72 billion euros. /3/

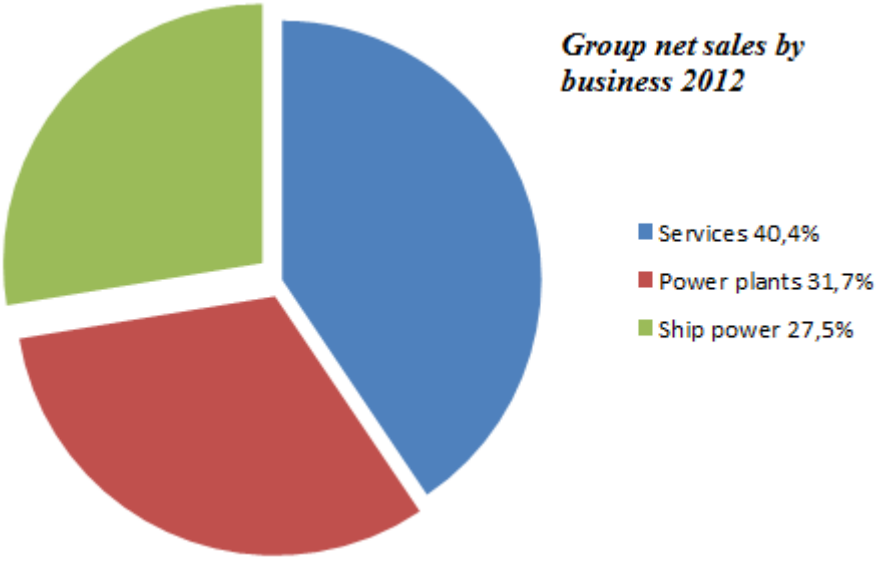


Figure 1. Revenue generation model 2012. /8/

Wärtsilä had almost 19 000 employees, 114 nationalities, 160 offices and 70 countries around the world in the end of 2013. Wärtsilä is a public limited company and the shares of Wärtsilä are listed on the Helsinki Stock Exchange. Close to 60% percent of the personnel is under Services (Figure 2.). /8/

In Finland Wärtsilä has over 3600 employees in different locations. Those locations are: Helsinki, Vaasa, Espoo and Turku. Wärtsilä headquarters are located in Helsinki.

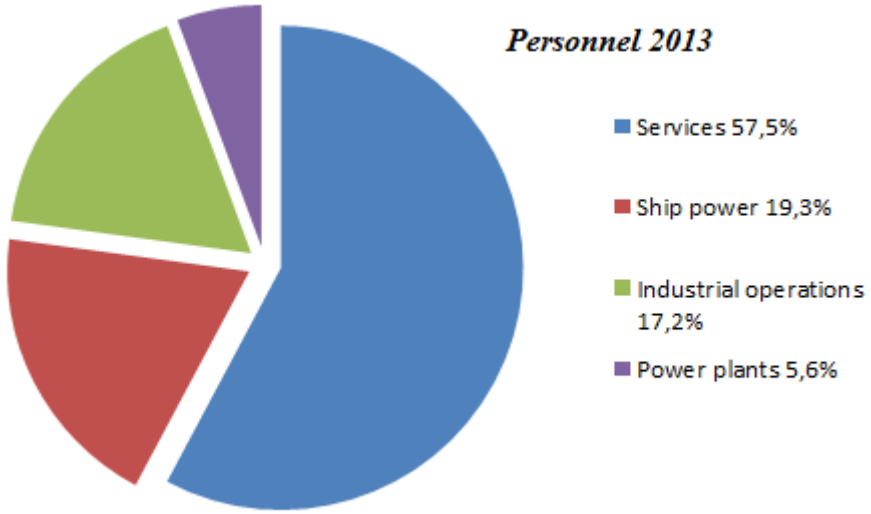


Figure 2. Personnel 2013: Divided into human resource areas. /3/

2.2 Services

Wärtsilä will support its customers throughout the lifecycle of their installations. Wärtsilä provides wide portfolio and services for shipping and power generation. This portfolio includes training, spare parts, technical support and maintenance. Key drivers on the market are increased focus on total cost of ownership and lifecycle efficiency, growth of gas as a fuel in both shipping and power generation, accelerating technological development and cost pressure which increases demand for expertise. /8/

2.2.1 Material Management

The Wärtsilä Global Logistic Services material management includes:

- Inventory & planning
- Strategic purchasing
- Operational purchasing

The main objective of material management is to have right parts available in the right quality and quantity while minimizing inventory value.

The material management is based in 10 locations: Winterthur, Trieste, Drunen, Zwolle, Surgères, Mulhouse, Vaasa, Busan, Turku and Rubbestadneset. The corner stones of Material Management can be seen in Figure 3.

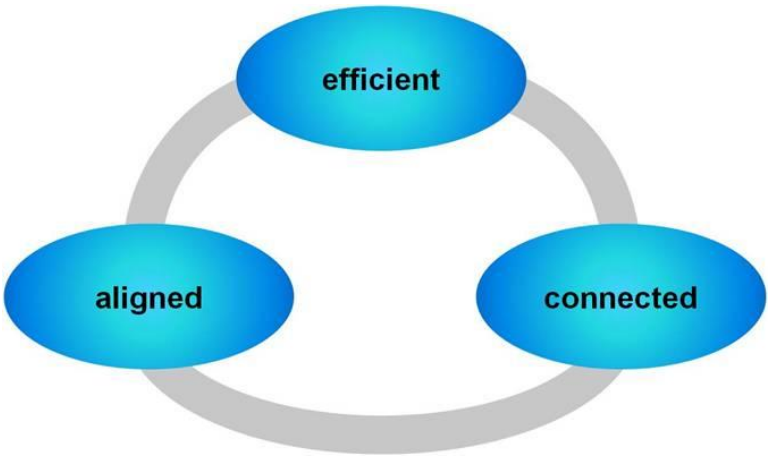


Figure 3. Corner stones of Material Management. /10/

The strategy of Material Management is to focus on problem solving and simplification on order to gain speed, flexibility and efficiency. /10/

2.2.2 Supply Management

The purpose of the Wärtsilä Global Logistic Services Supply Management is to manage all the supplies according to the specific requirements of the Division and Business Lines specific. This can be seen in the Figure 4. There are for example right quality, lead time and cost.

The roles of Supply Management:

- Management of strategic sourcing
- Creating, developing and managing the supply chain
- Managing supplier agreements: quality, reliability, lead time and cost
- Securing supplier capacity and qualification
- Managing supplier development /14/

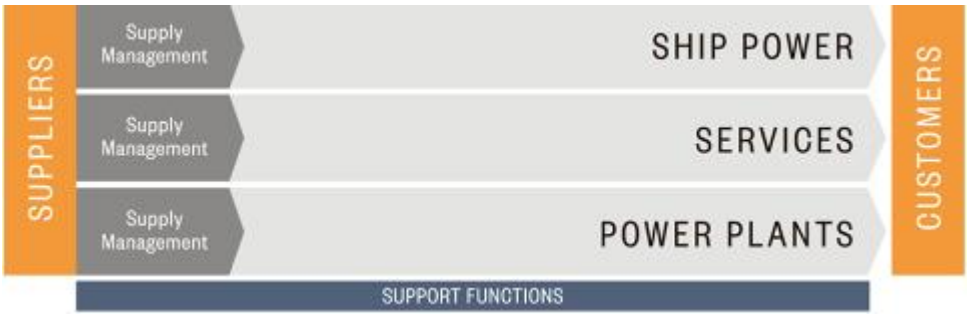


Figure 4. Supply management in Division and Business Lines. /14/

3 THEORETICAL FRAMEWORK

3.1 Supply Chain Management

The objective of this chapter is to introduce supply chain management. Different definitions and basic principles are presented. How the relationships effects on the supply chain – advantages and disadvantages are explained. The structure of supply chain is also introduced.

3.1.1 Definition of Supply Chain Management

The easiest way to define a supply chain would be: a few companies that process materials and at some point they reach the customer. However, the supply chain management is a wider concept than this. The supply chain management has been defined by Christopher:

"*The management of upstream and downstream relationships with suppliers in order to deliver superior customer value at less cost to the supply chain as a whole*."/2/

Terms 'upstream' and 'downstream' comes from the analogy of water flow in a river. Upstream means organization's nearby source and downstream means organization's nearby the end-customer. Each partner is responsible for adding value to a product. /6/

Some companies use the supply chain management to differentiate between the outgoing and incoming material flows. Outgoing material flows relates to the products that are distributed by the company to its customers. This is known as physical distribution. Incoming material flows covers all activities needed from supplier to consumption within the company itself. This is known as materials management. However, the scope of supply chain management goes one step fur-

ther. It also takes into consideration optimizing the material flows from the supplier´s supplier. /15/

Even though the supply chain management is often the term that is mostly heard it could be also called demand chain management. This reflects to the fact that the chain is driven by market instead of suppliers. Also the word chain could be replaced by word network. That leads to a definition: a network of organizations cooperatively working to control, manage and improve the flow of materials and information from supplier to end-user. /2/

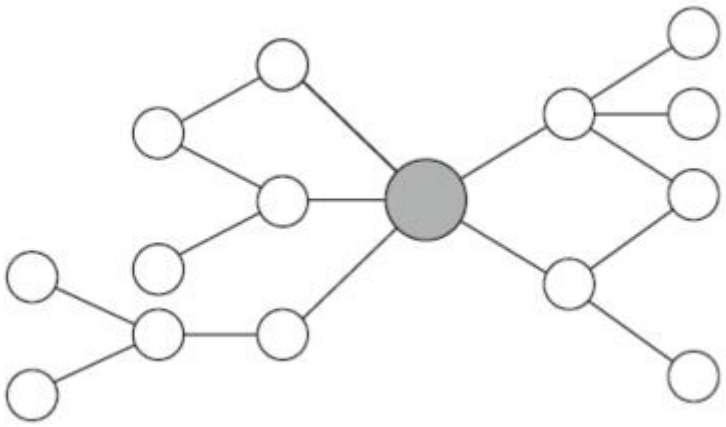


Figure 5. Supply chain network. /2/

The seven basic principles of supply chain management:

1. Segment your customers based on the service needs and adapt the supply chain to serve these segments profitably.
2. Customize the logistics network to the service requirements and profitability of customer segments.
3. Listen to market signals and align demand planning accordingly across the supply chain, ensuring consistent forecasts and optimal resource allocation.
4. Differentiate product closer to the customer.

5. Manage sources of supply strategically.
6. Develop a strategy that supports multiple levels of decision making and gives a clear view of the flow of products, services and information.
7. Adopt performance measures to gauge collective success in reaching the end-user effectively and efficiently. /1/

3.1.2 Relationships in Supply Chain Management

One of the basic assumptions of supply chain management is that the companies involved in the supply chain are willing to work close together and to develop partnership relationship. /15/

The impact of a specific supplier relationship depends on how it fits into the company operations and strategy. There is a number of technical, commercial and organizational solutions in a supplier relationship that affects the costs and the benefits of both companies. /5/

David Ford has examined the buyer-seller relationships in industrial markets. His view is that the relationship will develop as a process through time. Product and process technologies of the two companies are the most important factors when determining the nature of the relationship. When a company evaluates potential suppliers there is not any commitment in the beginning of the relationship. The evaluation of the new supplier consists of three factors: experience, uncertainty and distance. The new supplier will be judged through experience which comes from the current and previous relationships. The buyer will face uncertainty of potential costs and benefits when dealing with the new supplier. The distance between buyer and seller has several aspects:

- Social distance: unfamiliar way of working
- Cultural distance: differences in the norms, values and ways of working
- Technological distance: product and process differences

- Time distance: the time from placing the order to the moment when the product is delivered.
- Geographical distance: physical distance of the companies

Ford has also stated that the development of buyer-seller relationships can be seen as a process where the experience increases, uncertainty and distance reduces, commitment grows and they adapt to each other in terms of investments and savings. /4/

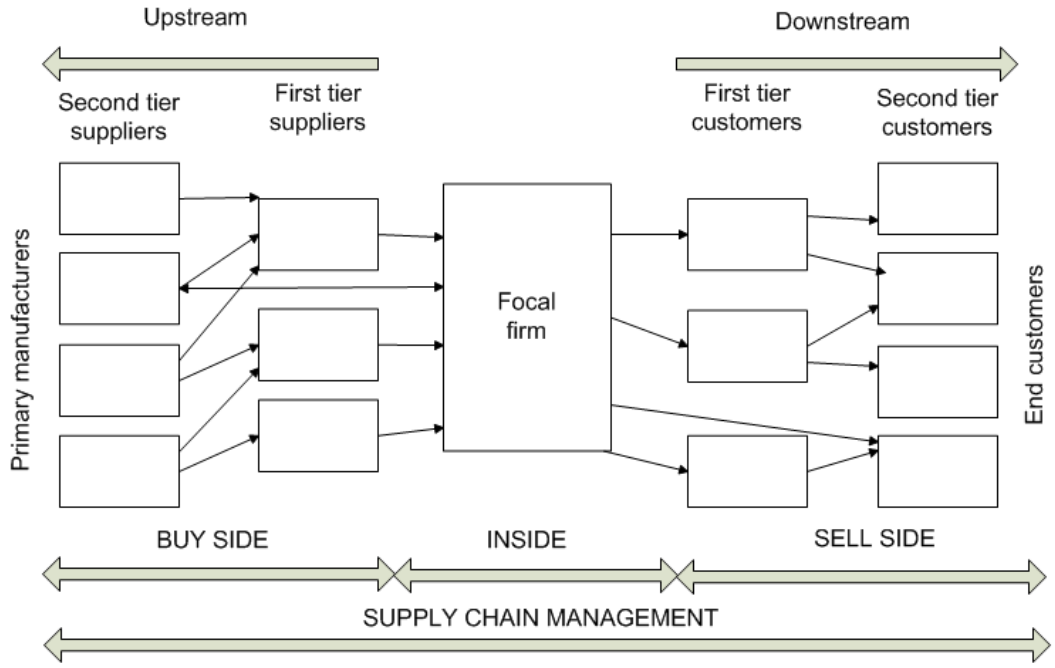


Figure 6. Relationships in the supply chain. /15/

The supply chain in this diagram can be seen as number of processes and connections that extend across organizational boundaries. The focal firm is the controller in this supply chain and it must manage the whole chain:

- Purchasing and supply deals with the focal firm´s immediate suppliers.
- Physical distribution deals with the first tier customers.

- Logistics refers to materials and information management. Inbound logistics deals between the focal firm and the first tier suppliers and outbound logistics deals between the focal firm and the first tier customers. /6/

3.1.3 Advantages and Disadvantages of Supply Chain Relationships

The relationship within the supply chain must provide at least the following results:

- Improved quality
- Increased flexibility
- Shorter delivery times
- Faster implementation when changes on a product
- Increased reliability of deliveries
- Reduced stock levels
- Lower prices
- Process and product innovations
- Increased communication /15/

There can be also disadvantages within the relationships. The supplier can become very dependent on only one manufacturer. And if the circumstances have changed after a long-term contract it may result to the end of a relationship. /15/

It can also lead to the point that small and medium-sized enterprises ends up holding the inventories. /6/ This of course affects negatively to profitability of those small and medium-sized enterprises.

3.2 Procurement

This chapter will define the procurement and the related main functions. In the first chapter the concept of procurement is presented. Then the role of procure-

ment is explained. Lastly, the purchasing process will be introduced as a complete process from specifying to evaluating.

3.2.1 Concept of Procurement

Weele has defined procurement as managing the company´s external resources in a way that the supply of all goods, services, capabilities and knowledge which are necessary for maintaining and managing the company´s primary and support activities is secured at the most favorable conditions. /15/

Generally the aim of the procurement is to make sure that the organization has the supply of the needed materials secured. Procurement makes a connection between a company and a supplier.

In addition, Weele has listed some key activities of procurement:

- Determining the purchasing specifications of the goods that need to be bought (quality and quantity)
- Selecting the best possible supplier
- Preparing and concluding negotiations with the supplier
- Establishing agreements and legal contracts
- Placing the orders to the selected suppliers
- Monitoring and controlling the orders
- Follow-up and evaluations (settling claims, keeping product and supplier folders up to date) /15/

3.2.2 The Role of Procurement in Supply Chain

Procurement makes a connection between a company and a supplier. This is presented in Figure 7. There are three stakeholders in the strategic triangle and tool for every stakeholder for handling the relationships:

1. Primary customers. Products and services have to be tailored to the needs of more differentiated customer target groups, which require specific market strategies. Tool: marketing.
2. Major competitors. Companies must not only be able to respond to customer needs. They have to have competitive advantage. Tool: benchmarking.
3. Major suppliers. Companies have to continuously review company´s core activities. Supply chain strategies need to be developed. Tool: sourcing.

According to Weele, there are some authors that have added a fourth group of stakeholders, named employees or unions. /15/

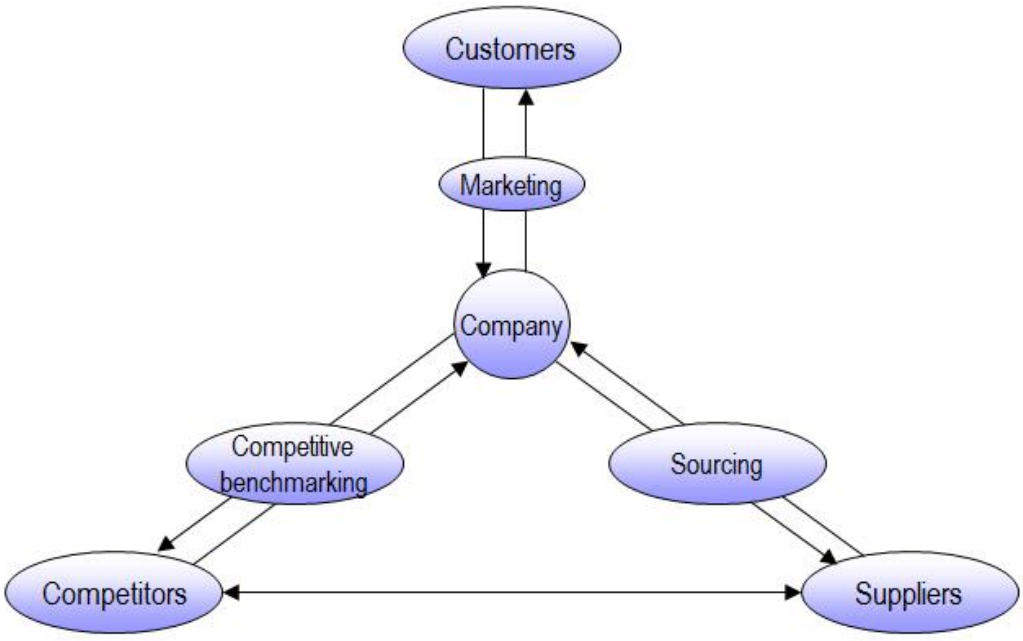


Figure 7. The strategic triangle. /15/

Business strategies are often based on Porter´s value chain model. The value chain model assumes that the company's earnings come from the functions of the company as a common achievement. There are two types of functions on the model:

1. Primary activities: Inbound logistics, operations, outbound logistics, marketing & sales and service. These are the functions that focus physically to the products which will be delivered to the customer.
2. Support activities: Firm infrastructure, human resource management, technology development and procurement. These functions enable and support the primary activities. /15/

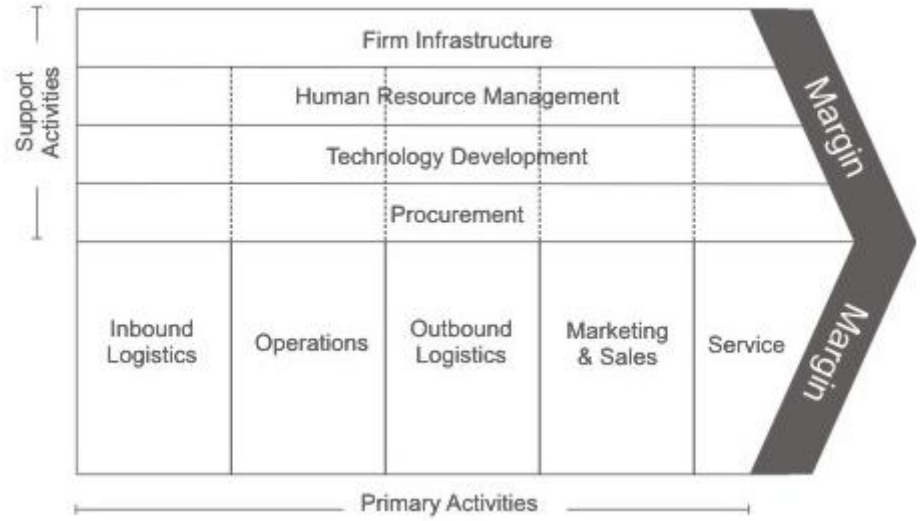


Figure 8. Porter's Value Chain model. /12/

The function of the procurement refers to purchasing inputs used in the value chain, not to the purchased inputs themselves. These purchased inputs include raw materials, supplies and other consumable items, as well such assets as machinery, buildings, and laboratory and office equipment. /12/

The examples show that the purchased inputs may be related to both activities. According to Weele, this is one reason why Porter classifies procurement as a support activity. /15/

3.2.3 Purchasing Process

The purchasing process consists of six main components according to Weele, as seen in Figure 9. The first three steps are known as tactical purchasing or sourcing. The last three steps are known as ordering or supply. The main aim of a purchasing process is to provide the right product, on the right time, in the required quantity with a reasonable cost. /15/

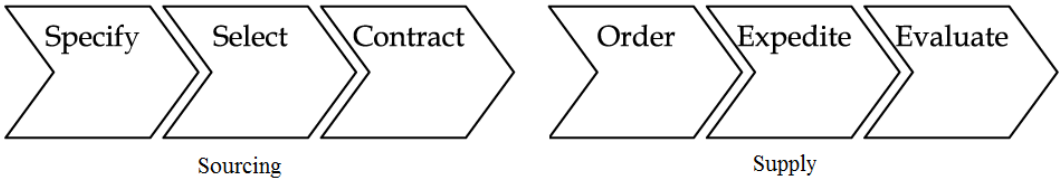


Figure 9. Purchasing process model. /15/

1. Specify: The first thing to do is to determine what is needed, how much and the required quality of the goods and services. In this step the company has to also face the make-or-buy question. Other relevant parts of this step are delivery time, maintenance specification, legal and environmental requirements and target budget.
2. Select: After the definitions have been made the purchaser can start selecting the supplier. The purchaser has to decide the method of subcontracting and how the work will be awarded, turnkey or partial subcontracting and fixed-price, unit-price or on cost-reimbursable basis. The next thing to do is to make a list of suppliers that may do the job. Making of so-called long list of suppliers and sending a request for information for those suppliers is the next task. A visit or audit for the companies may be also necessary. After this a supplier's short list is made which is based on the earlier gathered

information. Only the most promising suppliers on the short list are sent a request for quotation. The suppliers should submit their quotations in a way that it is easy for the purchaser to compare them.

3. Contract: When the supplier is selected a purchasing contract has to be made. This contract includes all the things that have been already agreed such as delivery time and technical specifications. There are of course cultural, political and characteristic differences which make the use of a standard purchase contract limited. Generally the purchase contract includes prices, terms of delivery and payment, penalty clauses, warranty conditions, insurance and safety regulations, transfer of rights, obligations and third party contracts. There have been attempts to standardize international trade and The Incoterms is a good example of that.
4. Order: The fourth step is placing the order. A noticeable thing is that the purchase order is sometimes in fact the contract. These orders are usually large, one-time orders. In other cases, buyers will negotiate an agreement which covers a longer period, even a one year or longer. Purchase orders will be placed against this agreement. When placing an order specific information and instructions must be provided to the supplier. One of the important things is to have a purchase order number, because both the supplier and the buyer can use it as a reference. Other relevant information is a description of the product, price and amount of the units, delivery and invoicing address, and expected delivery date. When the purchase order has been sent to the supplier it is expected that he supplier will provide a purchase order confirmation or in other words purchase order acknowledgement. This confirmation informs that the supplier has agreed the information of the purchase order. The confirmation will also include confirmed delivery date for the goods.
5. Expedite: The fifth step of the purchase process is expediting. This step demands a lot of attention from the purchasers. It is usually based on an

overdue list which includes all late deliveries. There are a few types of expediting. The first type is called exception expediting, which means that the purchaser will only take actions when getting a signal that they are running out of materials. This method is not recommended because the production will be disrupted easily. Another method is called routine status check. Its aim is to prevent supply and quality problems of the materials. The purchaser will contact the supplier on a specific day before the promised delivery date with the request to confirm the promised delivery date. The third method is called advanced status check. It is used for critical materials and suppliers. Critical refers here to materials which are on critical path of material planning and with tight quality tolerances or has problematic suppliers. What needs to be done is to negotiate with the supplier in the contracting stage that a detailed production plan will be handled to the purchaser before the production starts. With this production plan the purchaser will make periodical inspections to make sure that everything is going as planned.

6. Evaluate: The sixth and the final step of a purchase process is evaluation and follow up. There are always possibilities that wrong kind of goods has been supplied or the quality of goods is not high enough. This leads to actions such as claims and penalties. This additional work must be reported to the purchasing management in order to keep purchase costs clear. Other relevant tasks of the purchaser are to also organize all the purchase and supplier documentations and to keep data of individual supplier´s quality and delivery records. This data is very important to see actual capabilities of each supplier. Companies can use it to reduce suppliers from their short lists to work with fewer but more capable suppliers. /15/

3.2.4 After Sales Service

The after sales-business consists of the services that maintain the operation and usability of the sold product. One function of the after sales-business is spare part business. Its purpose is to guarantee spare parts for the customer in the selected period of time. There are four main functions on spare part business:

- Sales and delivery
- Purchasing
- Warehousing
- Product data management

Sales, delivery and purchasing are in direct contact with the customer. These functions constitute the core processes of business. Warehousing and data management are important support functions for the core functions. /11/

Many companies in the service sector face the problem of how to improve their purchasing professionalism. Purchasing operations are scattered throughout the organization and purchasing activities have an operational character, limited to placing orders, expediting and invoice checking. /15/ This leaves important functions such as sourcing and evaluating for less attention.

In the purchasing of service sector personal relationships and trust plays a greater role compared to industrial companies. Here are other factors which makes the purchasing department successful:

- Easy to contact
- Fast reactions to questions and problems
- Prompt delivery of goods ordered
- Short delivery times
- High quality of the goods

- Immediate feedback for unforeseen order changes. /15/

3.3 Business to Business Commerce

This chapter will introduce the terms that are used in business-to-business commerce and how they are integrated. It will concern on the most used and popular tools of business-to-business commerce and their advantages and disadvantages

3.3.1 The Terminology in Business-to-Business and the Data Integration

Traditionally, business-to-business transactions were defined as simply as trade or the procurement process. Nowadays, since the Internet is involved the term has changed; it is used to describe all types of computer-enabled inter-firm trade, usage of the Internet and other networking technologies in order to exchange value across organizational boundaries. /9/ This definition is very comprehensive and it gives us the basic principle for many internet-based business activities. Despite of that, it is useful to study other related terms since there is no settled vocabulary and the content of the terms may vary depending on the user.

There are plenty of meanings and definitions for electronic business or e-business. One simple and suitable definition is that the e-business is an activity which tries to gain a competitive advantage through networks. /7/

E-commerce and e-business is often mixed together. Some consultants and academics argue that the e-commerce includes all of the electronically based activities that support company's market exchanges – including entire information system´s infrastructure. In the meantime others argue that e-business includes all of the internal and external electronically based activities – including e-commerce. /9/

According to Laudon and Traver it is important to make a working distinction between e-commerce and e-business. E-commerce includes transactions that cross

firm boundaries and on the other hand e-business includes the application of digital technologies to business processes within the firm. Both systems integrates blurry at the point on a firm where internal business systems link up with suppliers or customers, as seen in Figure 9. This means that e-business applications turn into e-commerce when an exchange of value takes place. /9/

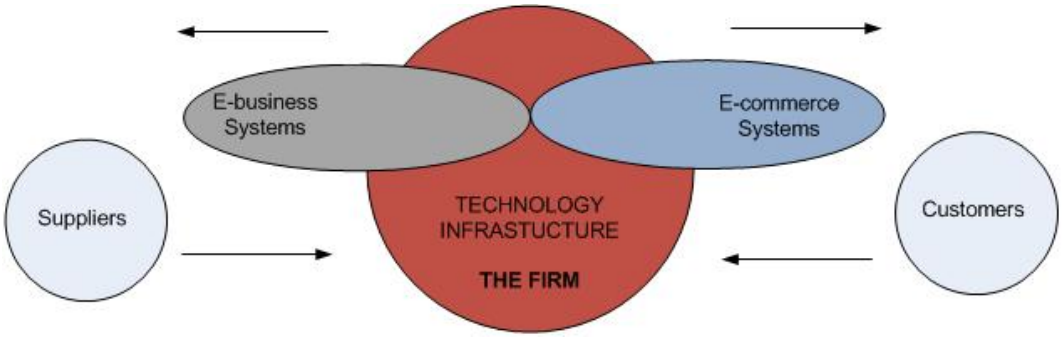


Figure 10. The difference between e-commerce and e-business. /9/

The integration in business-to-business between two supply chain partners can be divided into three levels:

1. Technical integration: Data exchange between companies.
2. Application integration: Software and hardware integration.
3. Business integration: Sharing plans, schedules and inventory information or cooperation on product development and customer service. Business integration requires both technical and application integrations to be achieved. /13/

3.3.2 Electronic Business Tools

E-business tools can be categorized into three groups:

1. Computerized production systems (such as ERP, MRP & MRPII) which integrate manufacturing activities like production planning, tracking, scheduling and ordering.
2. Integrated information systems are used for transmitting and sharing information within the organization.
3. Integrated electronic data interchange (such as EDI) allows sending electric documents within the organization and from customers and supplier. /13/

Software applications started evolve in the 1960s. Their main purpose of was to integrate internal operations in a way to serve the customer. In the 1980s the main goal was to coordinate repeatable tasks between two partners in a result of electronic document interchange applications. The next goal in the 1990s was to reduce the costs of communication and at that stage the concepts of e-business and e-commerce was introduced. /13/

A few e-business tools will be introduced in the following:

3.3.2.1 Enterprise Resource Planning (ERP)

Enterprise resource-based planning (ERP) is a software package which provides a large scale of systems to manage and co-ordinate internal business activities. /13/ ERP is developed from material requirements planning (MRP) which answered questions such as how many, and when. /3/ The ERP systems were developed to improve internal organization performance and cooperation between different functions, such as manufacturing, sales, logistics, financial accounting, material management and human resource management. The most known ERP system providers are SAP, Oracle and PeopleSoft. The traditional ERP system is being challenged by the new concept of web services. The new web system will not link internal but also inter-organizational processes. /13/

Advantages of ERP:

- Visibility
- Variety of modules
- Information exchange

Disadvantages of ERP:

- High cost
- Long timescale required for implementation
- Lack of flexibility /13/

3.3.2.2 Electronic Data Interchange (EDI)

Electronic data interchange (EDI) is a broadly defined communications protocol for exchanging document. It emerged by the late 1970s and it has been developed in different stages after that. EDI was developed to reduce the cost, delays and errors which existed in manual exchanges of documents such as price lists, shipping documents and purchase orders. EDI is used widely all over the world within industry and is has been particularly important in the development of B2B e-commerce. Nowadays EDI is viewed as a general enabling technology that provides the exchange of critical business information between computer applications while supporting a wide variety of business processes.

Advantages of EDI:

- Support of direct commercial transactions
- Cost saving, eliminates paper processing
- Time saving
- Reduces errors

Disadvantages of EDI:

- Is not well suited for the development of electronic marketplaces
- Lack of communication system
- Expensive for small business to implement /9/

3.3.2.3 E-procurement Systems

E-procurement systems enables its users to operate the transactional aspects of requisitioning, authorizing, ordering, receipting and payment processes for the required services or product using the Internet. /13/ There can be also tracking and tracing features which helps significantly to monitor the order follow up and delivery real-time. Concentration in the e-procurement is on simplifying commercial transactions within and between organizations and to have larger volume among fewer suppliers.

Advantages of e-procurement:

- Reduction on administrative workload
- Simplified and reduced purchasing cycle
- Lower material prices and organizational costs

Disadvantages of e-procurement:

- Implementing e-procurement systems may be complicated
- Resistance to change from traditional purchasing /15/

4 SUPPLIER FEEDBACK SURVEY

In this section the supplier feedback survey is introduced, how the survey was made and how the survey is structured. It is also analyzed by dividing the questions into different categories. The final chapter of this part includes the feedback comparison from last year to this survey.

4.1 Background Information

The survey was made by using QuestionPro.com online survey software. This site was selected after comparison of a few similar only survey sites. After choosing the site the questions were chosen in several meetings. The first part of the questionnaire is about the information of the suppliers. The following questions deals with usage experience related questions and improvement proposals. Lastly, there are several questions about contacting and communication.

The survey was sent to 81 suppliers of which 52 completed the survey. This gives a response rate of 64.2%. The survey was sent via email with a link to the survey on Wednesday 5th of March and was closed on Friday 21th of March. The suppliers had total of 13 days to answer the survey. Reminders were sent on Friday 14th of March and on the closing day.

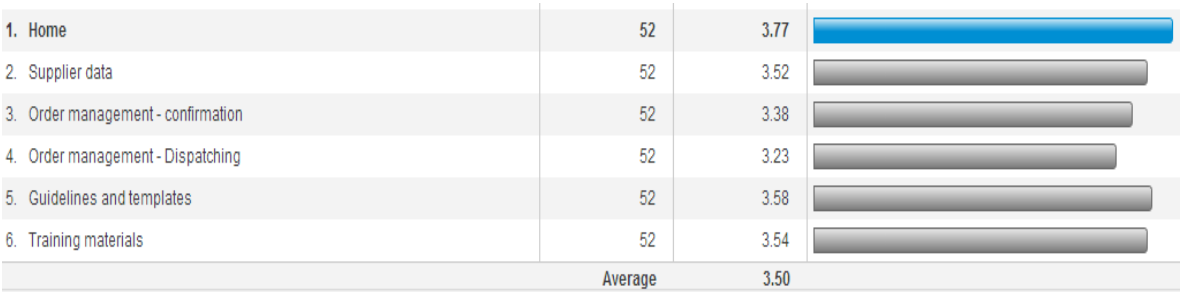
4.2 Analyzing the Feedback

The feedback analysis is divided in different parts: usage experiences, new functions related feedback and communication related feedback.

4.2.1 Usage Experiences

The first question of usage experiences was about rating usability of Supplier Portal. There were six different types of functions to be rated on scale of 1-5, as seen

in Figure 11. The average ratings were 3.5 of 5. Most of the suppliers were satisfied with these functions.



1. Home	52	3.77
2. Supplier data	52	3.52
3. Order management - confirmation	52	3.38
4. Order management - Dispatching	52	3.23
5. Guidelines and templates	52	3.58
6. Training materials	52	3.54
	Average	3.50

Figure 11. Usability of functions.

Negative feedback from the suppliers was analyzed closely in terms of making the best improvement proposals. The most common feedback is listed here:

- Slowness of the system.
- Short log-in time.
- Problems with the search function.
- Does not work with all browsers.
- Problems with dispatching and confirming the orders.

The next question regarding the usage experiences was about comparing Wärtsilä Supplier Portal to other similar customer portals. 19 of 52 suppliers answered that they use similar portals with other customers.

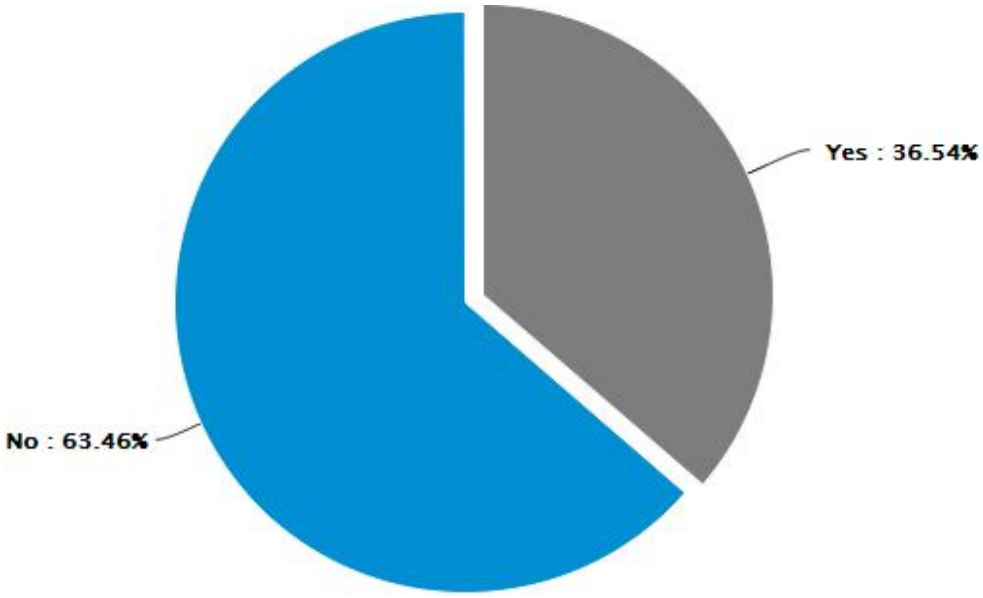


Figure 12. Usage of similar portals for other customers.

Suppliers who answered “yes”, were able to rate Wärtsiläs portal on scale 1-5 as a whole compared to other portals. The average rating was 3.39 of 5. These ratings can be seen in Figure 13.

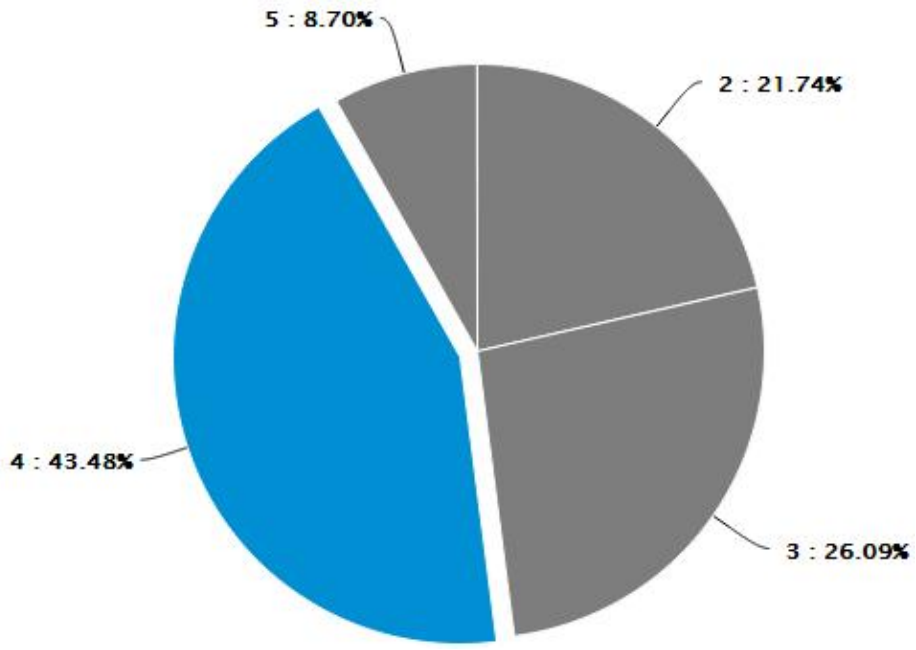
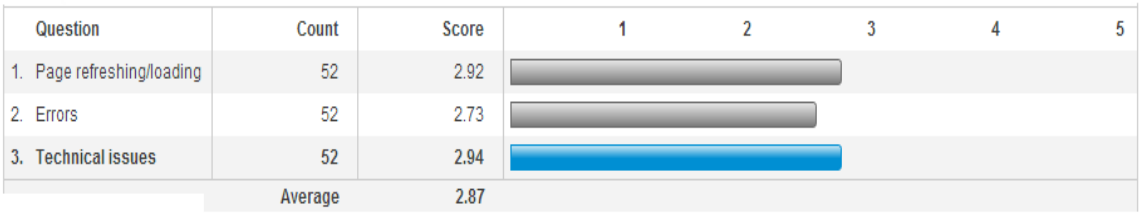


Figure 13. Wärtsilä Supplier Portal against other portals.

In the next question the suppliers were asked to rate the technical capabilities of our portal (Figure 14.). These technical capabilities were divided into three categories: page refreshing/loading, errors and technical issues. The suppliers were able to rank these on a scale of 1 to 5, 1 meaning that there is plenty of problems. The average score for all these three combined was 2.87. It seems that the suppliers face some technical problems.



Question	Count	Score	1	2	3	4	5
1. Page refreshing/loading	52	2.92					
2. Errors	52	2.73					
3. Technical issues	52	2.94					
	Average	2.87					

Figure 14. Technical capabilities.

Feedbacks related to technical problems were mainly regarding slowness of the system. Some of the users had some connection problems and often faced with losing the connection or got thrown out of the Portal. There were also complaints that some fields are too small and because of that visibility of some functions suffered. Suppliers also told that when facing a technical problem, Wärtsilä has been very helpful solving out the problem.

4.2.2 New Functions Related Feedback

The suppliers have been very active to propose new functions to Supplier Portal. The most proposed and potential functions are listed here:

- Quality, open order and delivery reliability reports through Portal.
- Supplier data should be able to be change by the supplier itself.
- Downloading and uploading certificates, forecasts, invoices and drawings.
- PDF-printing.
- Visibility for different Wärtsilä locations.
- Specific email address for support. For example support.portal@wartsila.com

4.2.3 Communication Related Feedback

Communication related questions started by asking if the suppliers want to be contacted regarding this survey. 21 suppliers out of 52 wanted to be contacted.

The next question asked the suppliers, if they need further training with the Portal and what would be the method to organize it. The suppliers answered unanimously that they do not need further training.

In the next question the suppliers were asked which communication channel they would prefer Wärtsilä to use in the Supplier Portal related technical updates. The answer was once again unanimous. They all would prefer communicating via email.

In the following questions was asked that has they been in contact with Wärtsilä about the Supplier Portal related issues. Approximately 40% percent of the suppliers had been in contact (Figure 15.). To those who answered “yes”, there were text box to add comments for clarifying the reason for the contact. Contacts were mainly taken because of problems when dispatching orders. Other reasons were about price changes, passwords, or getting access for colleagues.

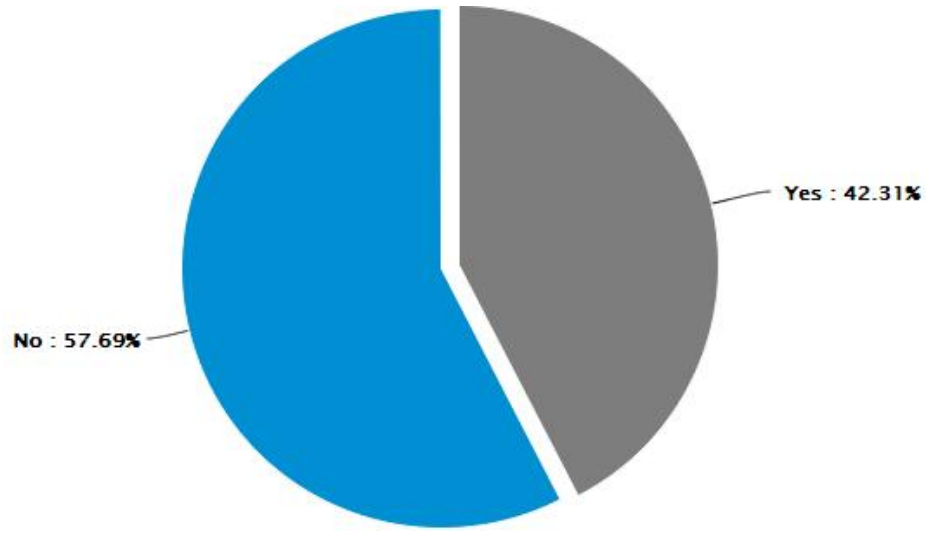


Figure 15. Suppliers contacting Wärtsilä.

The next question asked if the suppliers find it easy to contact our purchasers in the Supplier Portal related question. 50 suppliers out of 52 answered that affirma-

tively. One who answered negatively told that purchasers do not always understand their problems and other one told that he would like to contact via the Portal.

The following question asked if the suppliers get response in reasonable time after contacting. Every supplier answered “yes” to this question.

In the last question it was asked how the supplier would like to give feedback. Most of the suppliers responded that an online survey would be the best option. Other options were offline survey, face to face meeting and online meeting (Figure 16.).

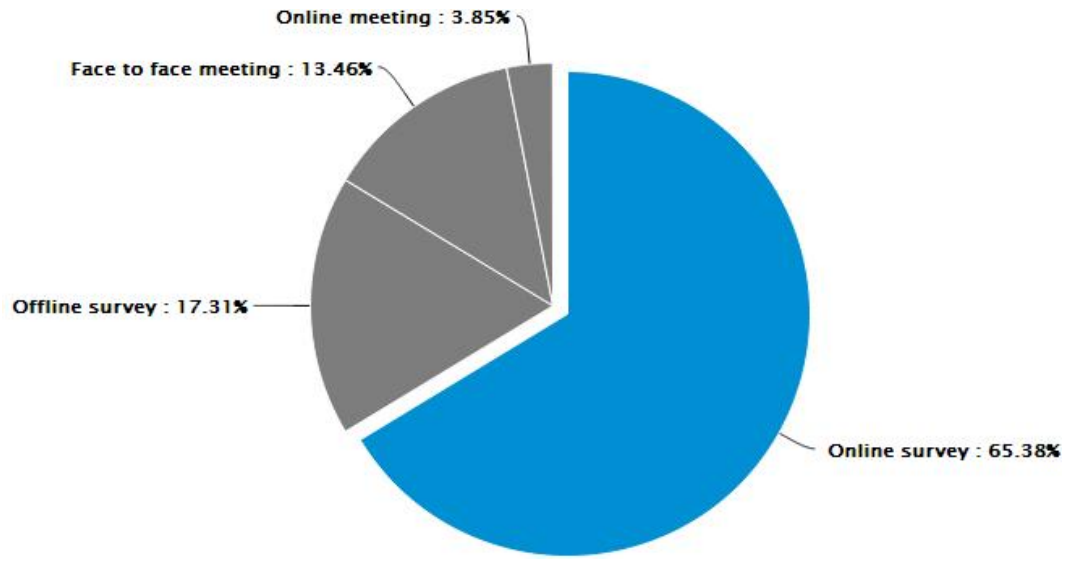


Figure 16. How the suppliers would like to give feedback.

4.3 Comparing the Feedback of 2014 to Feedback of 2013

The feedback survey of 2013 had five different functions to be rated on scale 1-5. The average rating of 2013 for these functions was 3.10. These ratings can be seen and can be compared against this year’s ratings in Figure 17. The only function that had worse rating in 2014 was “Guidelines and templates”. All other functions

had better rating in 2014. The average rating increased from 3.10 to 3.50 in one year.

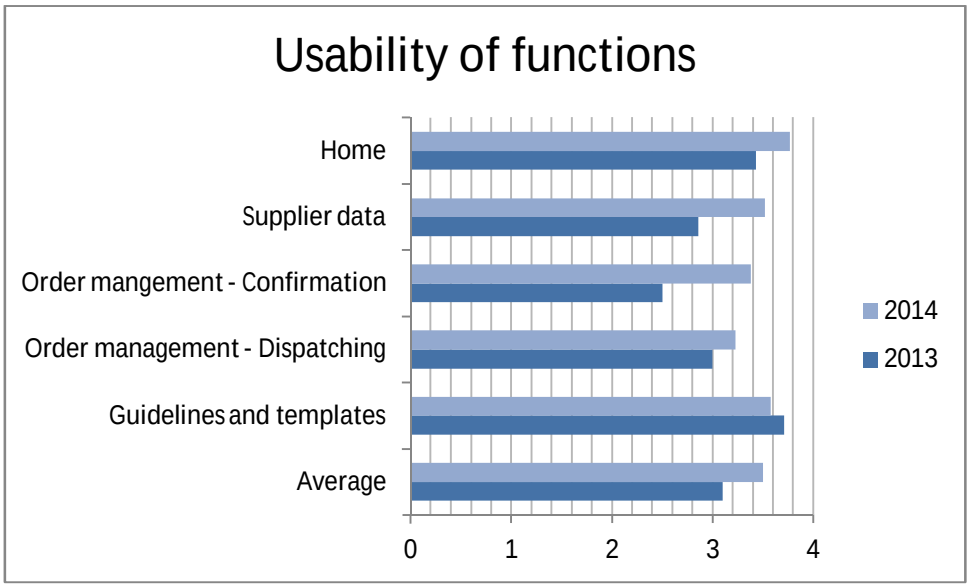


Figure 17. Usability of functions, comparison.

Feedbacks from this survey compared to last year feedback reveal that there are still a few problems which occurred last year and also this year. These problems relates to dispatching issues and some problems with search function. The suppliers have also complained that they want to get access in their supplier data themselves. Positive feedback relates to layout of the Portal and prompt actions from Wärtsilä when they have issues. They also appreciate this new kind of working, receiving a purchase order through the Portal instead of a fax or email.

5 CONCLUSIONS AND DISCUSSION

This chapter introduces the conclusions from the survey and comparison from last year feedback. There are also some reflections about the response rates and the survey itself.

As mentioned earlier, the objective of the thesis was to further develop the Wärtsilä Supplier Portal. Feedbacks from the survey provided plenty of improvement proposals for different functions of the Portal. Usage experiences brought up some issues and problems that the Portal is facing in its current form. These problems will be surely taken into account and some of these problems are already under development.

The feedback relating to new functions gave plenty of acknowledge about the expectations of the suppliers. I was very pleased to see that the suppliers are really active in this continuous process of developing the Supplier Portal. It is a real win-win situation for both Wärtsilä and the suppliers.

The communication related feedback was really positive and it shows that Wärtsilä is doing the right things. There is enough of training materials and if some problems occur, the suppliers do not hesitate to contact Wärtsilä. The feedback points out also that the suppliers will get response to their queries in a smooth and prompt way.

The response rate of the survey was fairly good. In the future there could some inducements for the suppliers to get the rates even better. There could be also some additional questions which would help analyzing the feedbacks. These questions could be:

- How long have you been using the Supplier Portal?
- How actively you use the Supplier Portal?

Some open questions were left unanswered. These open questions reveal the suppliers willingness to respond the survey. When a supplier answers one open question they usually answer every one of them and on the other hand, when some supplier leaves first open question unanswered they do not answer to rest of them either. Regardless of that, revising these questions would make even more suppliers to respond.

What comes to the reliability of this survey, I think that it is quite reliable. The respondents are professionals in their companies. This survey was made to develop the tool for these professionals and I think that they have given their honest opinion about the Supplier Portal. 40% of the respondents wanted to be contacted regarding this survey which also shows commitment from the suppliers.

In my opinion this project reached its goals. With the help of the survey Wärtsilä can now continue on developing the Supplier Portal to make it even better for its users.

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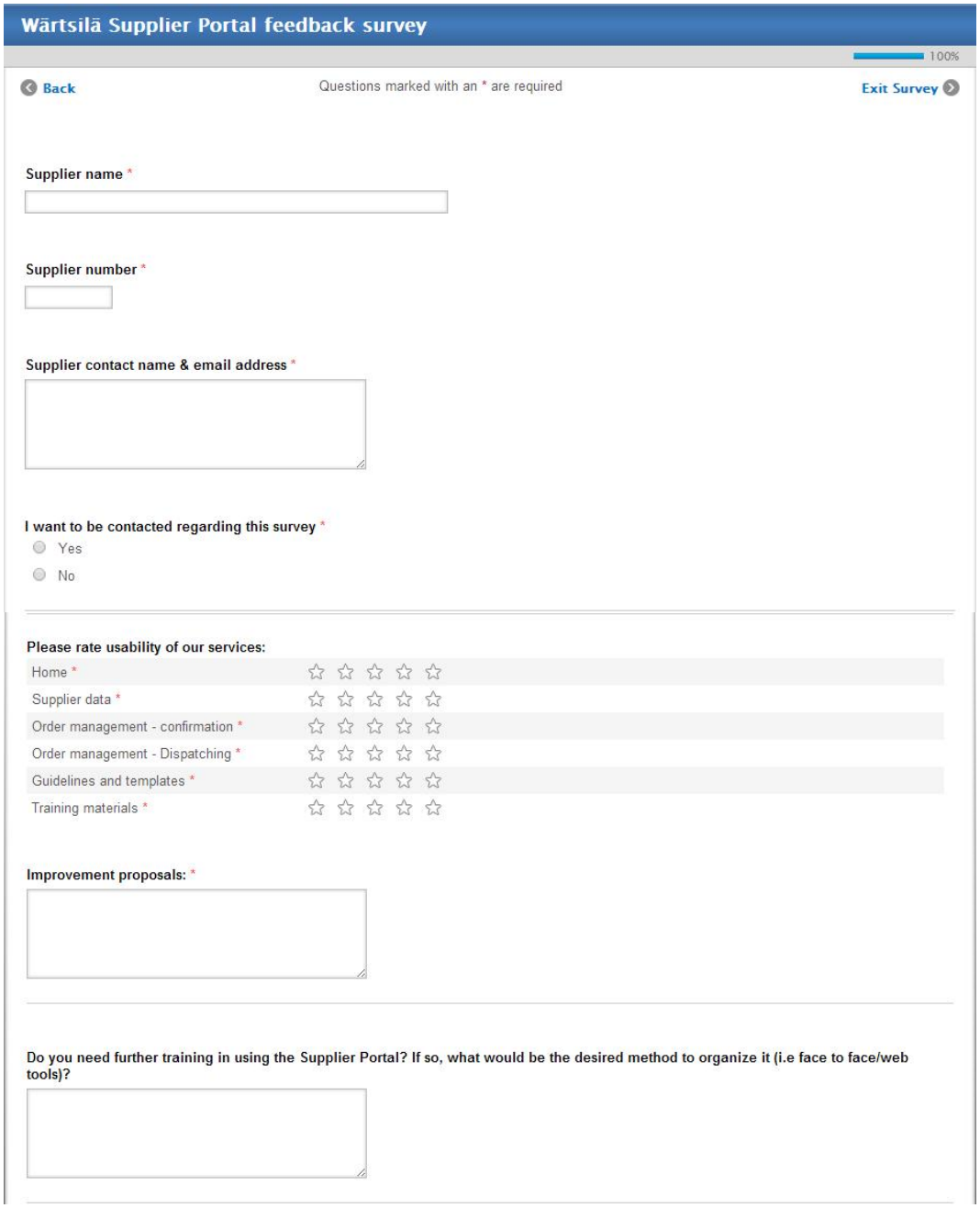
APPENDICES



Wärtsilä Supplier Portal feedback survey

100%

Back

Questions marked with an * are required

Exit Survey

Supplier name *

Supplier number *

Supplier contact name & email address *

I want to be contacted regarding this survey *

- Yes
- No

Please rate usability of our services:

Home *	☆ ☆ ☆ ☆ ☆
Supplier data *	☆ ☆ ☆ ☆ ☆
Order management - confirmation *	☆ ☆ ☆ ☆ ☆
Order management - Dispatching *	☆ ☆ ☆ ☆ ☆
Guidelines and templates *	☆ ☆ ☆ ☆ ☆
Training materials *	☆ ☆ ☆ ☆ ☆

Improvement proposals: *

Do you need further training in using the Supplier Portal? If so, what would be the desired method to organize it (i.e face to face/web tools)?

Which ERP (Enterprise Resource Planning) system your company is using?

Which communication channel you prefer Wärtsilä to use in Supplier Portal related technical updates?

Do you use any similar portals for other customers? *

If yes, please rate Wärtsilä Supplier Portal as a whole compared to other customer portals

Wärtsilä Supplier Portal	☆ ☆ ☆ ☆ ☆

Please rank following technical capabilities:

Page refreshing/loading *	☆ ☆ ☆ ☆ ☆
Errors *	☆ ☆ ☆ ☆ ☆
Technical issues *	☆ ☆ ☆ ☆ ☆

Imporovement proposals:

Mention one(or more) services that you would like to use in our Supplier Portal:

Have you been in contact with us within last month in Supplier Portal related issues? *

- Yes
- No

Do you find it easy to contact our purchasers in Supplier Portal related questions? *

- Yes
- No

When contacting us do you receive response in reasonable time? *

- Yes
- No

How would you like to give us feedback? *

- Online survey
- Offline survey
- Face to face meeting
- Online meeting

Additional comments / requirements / development ideas:

Continue

Thank you for providing your valuable feedback!