
Analysis of logistic process

Hatusen Liikenne Oy



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ABSTRACT

All industrial companies want to be productive and to make profit as well as expand their markets. To accomplish this, organizations are working on different principles, strategies to improve their processes to achieve their goals to have the right item in the right quantity at the right place, in the right condition to the right customer at the right time. This is where logistics management comes in, to make this all possible.

This thesis aims at looking into logistics as a process to show how organizations use it and how different choices in logistics affect the companies. The objective in this project was to find out if there were better ways in which the logistics process can be improved.

Using balance score card as the main analysis traitor, the analysis process was categorized into four perspectives: internal business process, financial, customer and the learning and development perspective. Other analysis tools included the Deming's 14 points and six-sigma methods.

Methods of research included interviews with workers, questionnaires to clients as well as using feedback from previous transactions. By collecting information relating to the business process from the point of sales order to the point where the customers made their payments, with all issues concerning who does what, when, and why, from sales to customer were enough to draw up a process map which will be made into a new improved blue-printed process diagram for the commissioner.

Keywords Balance scorecards, logistics process modeling design, process analysis, value stream mapping and supply chain management.

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ABBREVIATIONS

BSC	Balance Score Card
JIT	Just In Time
LPA	Logistic Process Analysis
OSI	Open Systems Integration
PDCA	Plan-Do-Check-Act-Cycle
PMAP	Process Mapping
QA	Quality Assurance
SADT	Structure Analysis & Design Techniques
SCM	Supply chain Management
SQC	Statistical Process Control
TQM	Total Quality Management
TDP	Technical Data Packages
VAT	Value Added Time
VSM	Value Stream Mapping

INTRODUCTION

1.1 Background

All industrial companies want to be productive and to make profit as well as expand their markets. To accomplish this, organizations are working on different principles and strategies to improve their processes to achieve their goals to achieve having the right item in the right quantity at the right place, right condition to the right customer at the right time. And this is where logistics management comes in to make this all possible.

Most organizations carry on their day-to-day routine but are unaware of the structure of their processes on ground or in other cases they may have a process on paper but have a whole different system going on in actual life. This thesis aimed at shedding some light on the operations of a Finnish charter bus company to see how a logistical process analysis could play a major role in bringing profitable changes to a company.

Using balance score cards as an approach for measuring performance in the organization opens up all the important perspectives of an organization to give motivation for the company's continuous improvement and increasing customer's perceived value.

1.2 Commissioning organization

According to Pauliina Hatunen (interview 9 July .2013) Hatunen Liikenne is a family owned company, started in 1945 located near Hämeenlinna in Parola. Table 1 based on information acquired at interview shows the resources that they have for operations. The services include: private transfers to and from airport, city-to-city as well as within their area of operations depending on the vehicle requested. The smaller cars are used for taxi service, small mini buses and big buses are used for the transfers.

Table 1. Company Resources

STAFF	ASSET	NUMBER
Administration staff		3
Drivers		6-8
	Big charter Buses	4
	Mini Buses	2
	Small Cars for Taxi	3
Outsource Accounting Services		1

This is not an everyday business so there are more orders depending on the seasons when it comes to the executive charter buses or the mini buses unlike the daily public transportation system. There are months from May-June and November-December that are active in the transfer industry but months between July-January when there is business.

Hatusen Liikenne has got their own organizational culture being a family business. They have a flat organization structure in which all decision making is done together and everyone takes responsibility for any task in the process even though there might be task distribution.

Hatusen Liikenne offers services to companies that have business trips, private groups and tourists. 80% of their customers through marketing by emails messages and 20 % from word of mouth.

Over the years the company has been able to create an identity for itself which is an asset in the market, as customers like the red color the company uses for the vehicles and they find it attractive.

The current technical data package (TDP) being used is the “bussi ohjemisto” software, which they use to handle their orders by registering details of the transfers. These include: working hours, distance covered and feedback. They use the net-visor software as an accounting package while they outsource the financial reporting services from a nearby organization.

The focus of this thesis is mainly on the logistics of the operations before and after the transfers making the process visible to the company in order to view the company status to find room for change if needed and also for future planning purposes. (Hatunen, interview 9 July.2013)

1.3 Research methods

There are a number of things that needed to be considered before initiating the project. The first and foremost issue was gaining an understanding of the operations, how they are run and how they can be improved. This led to more critical questions on what kind of lean tools could be used on implementation as well as what approaches to use in this analysis to bring out the best results. The main approach used in this thesis was the balance score card.

The research project was conducted through interviews with staff members to get a business perspective and an understanding of the flow of information and activities as well as the people. There were also surveys sent to customers to get a customer perspective to the research project. The other two perspectives: learning & development and financial perspectives were covered while covering the internal business process perspective.

In order to make this a successful project implementation the following steps were taken:

- Finding out who does what in the process
- Drawing down the current process
- Checking on how information flows
- Finding out what was overlooked in the process
- With the help of the commissioner deciding what could be emitted from the process or to be added into it.
- Drawing a new improved process plan and making a blue print
- Getting feedback from the customers on the company's services
- Using this information to make a marketing plan that will lead to a broadening of the market

1.4 Structure of thesis

Chapter one covers the background of this thesis and the author's motivation behind it. It also covers an introduction of the commissioning organization and the research methods as well as the research questions.

Chapter two contains the theoretical content of the thesis which includes a definition of a logistical process, followed by logistic management and process mapping tools. This chapter describes what process mapping is, why it is important and how organizations can use it.

Chapter three contains ways in which an organization can organize effective logistics operations, the importance of logistics and what kind of opposition the company may face and how it can move forward through the opposition when carrying out changes in the organization.

Chapter four illustrates the research procedures and the findings after an analysis and the interviews. The results are given from a customer perspective.

Chapter five contains the conclusion of the thesis and suggestions according to the findings and the observations acquired during the thesis project.

2 THEORETICAL BACKGROUND

2.1 Logistics definition

Logistics can be defined as the planning, implementing and controlling of goods or service to the point the consumer or customer is served, it cease to just be a movement of material or people from point a to point b but taking into account the flow of information too. an example of a water bottle putting in mind that water is life ,the whole process from the point the water is drawn from its source till it reaches the consumer is critical. There a lot of things that need to be look at as important: it needs to be transported at the right time, to the right place and in the right condition.

The question here would be, should logistics only be referred to in terms of production, warehousing and distribution? absolutely not, everything requires logistics in our everyday life, we can take time to look around in the room, there are thing around the house, room or class which we can certainly admit that they have been moved from somewhere and for them to get where they are someone had to sit down and plan or make a process model of transporting the product from point a to point b this is called logistics management. (Load delivered logistics, 2012).

There are a lot of activities or operations that make up the logistic process and these activities involves the input of members/work force ,financial and information and technology through management actions and logistic activities between a supplier and a customer in order to result with the output of competitive advantage, time and place utility efficient movement. This process is shown in the Figure 1 including the components of logistics management.

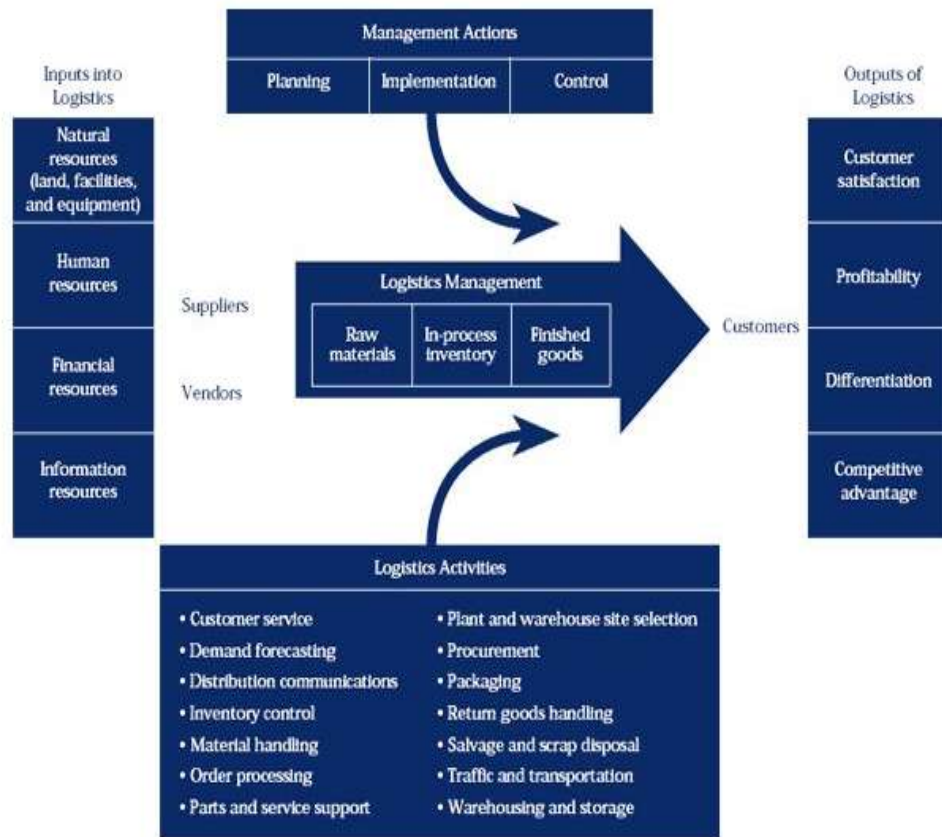


Figure 1 Components of logistics management (Santova logistics n.d.)

The whole process may be invisible to a customer until something goes wrong in the process like delay in delivery or other issues occur when we get to track down goods or when our supplier explains the channel to us, while knowing the process would give us more understanding but of course it is always the supplier that is more concerned about making sure the channel is getting the service or product to the consumer in the right condition or in the right time.

The logistics process is a system on its own and it required a well planned approach for its effectiveness and the way to approach it is look at is as a whole, since every department is working towards one goal of the organization, every activity affects another in one way or the other. (Stock & Lambert 2001, 2-4)

2.2 Customer Service

Customer service involves identifying and meeting the needs of a customer. While products are tangibles service is intangible but is measured and quality is tested in practice.

For customer service or service as part of the logistics process to be effective there is a need to have a service model this comprises of all the methods used to serve the customer thus the management of all the activities, interaction in the transactions. A service model determines the kind of experience that the customer will have at the end on the services, the customer will be able to tell what quality of service is it that they got from the service provider.

In other words the service method is the visible part of the service. It can be said that there is the front office and back office in the process as shown in the example and Figure 2. We see in the iceberg diagram that the method is the visible part of the service while the managerial part of the process is called the back-office. The back office is said to be a very important and big part of the service business. This means that if the service method as the visible part is not well arranged to meet the customer's expectation, all of the background work which is the greater part is wasted (Rossi 2013)

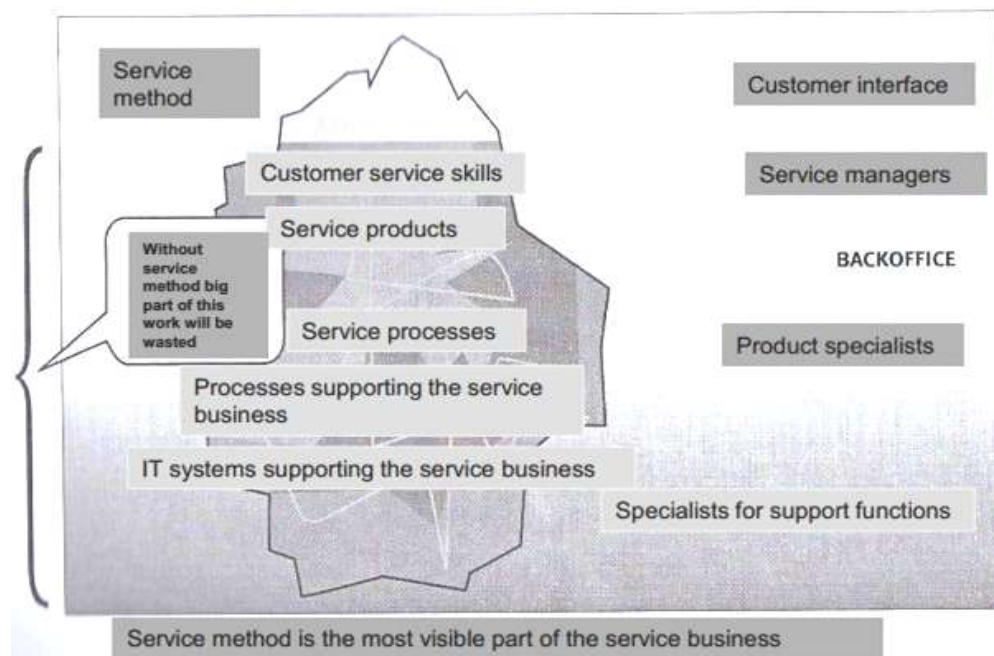


Figure 2 Service Method (Rossi 2013, lecture slides)

The front office and the back office need to complement each other so that the effort or the quality invested into the work behind the scene should flow even through the front office. Managers need to pay attention to how all the back office work can be properly presented in the service methods to make the process complete and successful

2.3 Order Processing

The order processing system is the source of control in the logistic system and the customer order is what initiates the whole logistic process and sets it into motion. The time it takes to fulfill the order and the quality of the information affects the effectiveness of the whole operation, slow communication will mean that the time to complete the order will increase and deadline will not be met and costs will increase and for warehousing services that means the carrying cost will increase and customers lose trust and the customer relationship is affected.

In managing order process and information is made easy with the kind of Technology that the company uses which improves the flow of the information storage and handling of the information too using electronic commerce (e-commerce) which comprises of different kinds technologies that prevent the unnecessary paper flows within the work environment.

It is important to make sure that the technology in use is used effectively and integrates well with the process because when it is complex it may make the information flow complicated too.

The customer order cycle includes the following steps

- Preparation and transmitting of order
- Order receipt and entry
- Processing of order
- Picking and packing
- Transportation
- Customer delivery and unloading of goods.

The main use of the order processing system is providing a network link between the service provider and customer as shown in the figure 3 in the path of customer order. The management of this network enables managers or measure whether the system is effective or if it needs improvement in areas like the accuracy of the order fulfillment, if the targeted time was met, if the systems incurs more cost and if there are any risks that need to be minimized in the process.

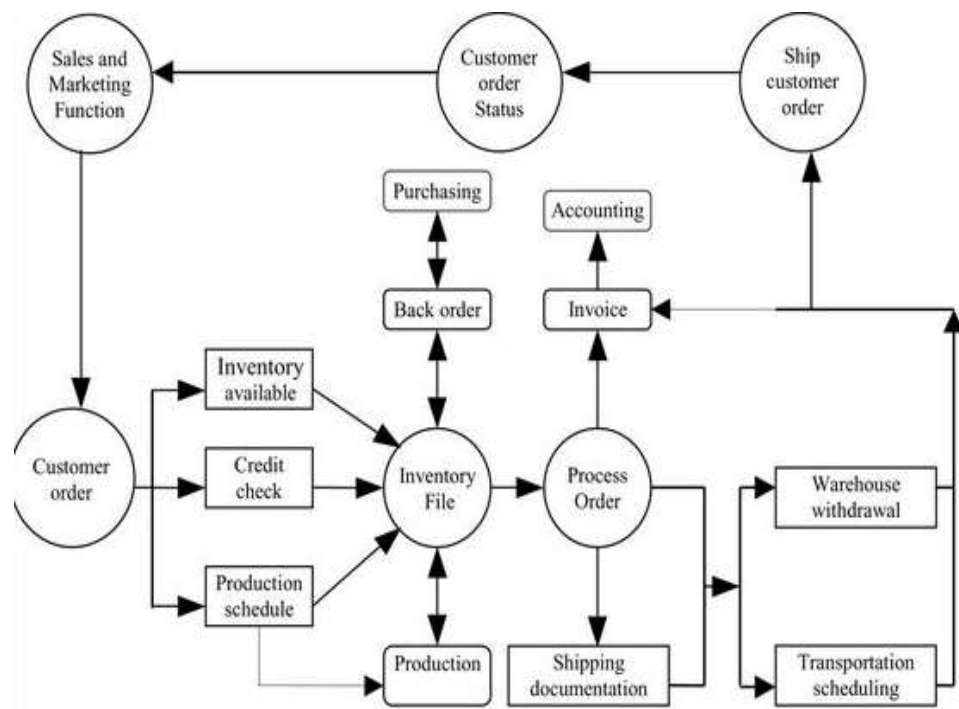


Figure 3. Path of customer's order (Gunasekaran, Patel, & Tirtiroglu 2001)

Communication within the departments is essential in this process since there is a link to every part when transmitting the information. Electronic commerce makes data accessible easier and faster than keeping a shelf of files that will take time to file documents and also easy management of that information.

Organizations need to put standards in their order cycle time or lead time so that there is continuous improvement in the process like decreasing lead times increase profit and cut costs thereof. (Stock & Lambert 2001, 146-151)

2.4 Human resource management and four stages of development

Human resource management is the process of hiring employees and developing them to be of value to the organization. This process also consists of analysing the works in the process seeing what the work involves and writing down the job descriptions then hiring the right people that will fit in those job posts. It is also in the human resource management's responsibility for to make sure that:

- The needs of the personnel are met
- The training of employees for continuous improvement
- Handling disputes and issues
- Payroll management and incentives.

An organization or business can have plans, goals and objectives put in place in order to make profit or sustain themselves on a market against competition but all of these plans need to be carried out by people, plans will just remain plans if there is no one to do the action. Therefore human resource is the most important asset in managing business logistics. Managing people with in directly affect the process quality and outcome of the business activity. It is good for organizations not to look at human a cost but as assets that contribute to the generating of income, growth of the business and customer relations.

Human resource management is the heart of the organization, they are the carriers and handlers of orders that come and go. The skill level of the staff members determines but the order will be fulfilled or the quality of the work in the process though technology contributes to it but even the technology needs human supervision .Statistics show that 15% of business success is due to the technical skills while the 85% of the success comes from the human engineering skills.

The management of human resource helps to ensure that both the goals of the organization and the individuals are being fulfilled otherwise when needs of the individuals are not met, the moral goes low little by little which might lead to high rate of absenteeism, unhealthy workers and resignations. It is the HRM that makes sure goals of the individuals are not and are met for a motivated workforce that will work knowing that their excelling goes along side the excelling of the organization. (Rex International trading, 2012)

2.4.1 Four stages in HRM development

The work of human resource management can be classified into four main functions according to the different needs in the organizations namely:

Reactive function

The main focus of the RF is making sure that there are peaceful and maintaining peace making sure strikes and destructions are avoided that includes making sure that relationships between departments is good. When workers are working in harmony work becomes enjoyable and the flow of work is easy it brings the sense of belonging and makes an organization feel like a family thereby workers make a long term commitment to their work.

Independent function

The independent function stands as a separate entity outside an organization where companies can go and leave issues of the organization that their own human resource managers or line managers cannot handle or for problems that may require special expertise. So in a way this can require the outsourcing of services. This independent function only handles a few things but all the other responsibilities can be handled by the company's own HR managers.

Supportive function

In supportive function the HRM works inside the organization actively making sure that company operations bring out great results for example in technology and production companies, though the SF may have limited knowledge concerning the whole organization they make sure that there is required number or workforce to do the work and work on how to motivate workforce to carry out work effectively so that work is effective, they press on towards results.

Integrative function

The integrative function is an important stage in which HRM is considered a partner since the organization may depend on this entity when it is geared into customer services as a profit generator, staff motivation for excellence in serving customers.

2.5 Deming's Points (HRM)

W.Edward Deming's 14 points of quality management are fundamentals of industrial transformation. Management's ability to implement these points into their business signifies the desire to remain in business. Some of Deming's point of quality management from 14 points is as follows:

2.5.1 Constancy of purpose

- ' towards improving quality of service and product, it should be on the minds of all departments to work in a way that they pursue to fulfill the goals of the organization.

Adapt to new philosophy

Organizations should not remain stagnant but learn be aware of the constantly developing market in order to keep up and remain sustainable regardless of the external business environmental changes.

Putting a stop to the dependence on inspections to improve quality

This means that quality should be created into the product or service, when quality standards are on the minds of everyone involved in the business process then there is definitely going to be quality imprinted in the service delivery too.

Putting an end to the practice of awarding business on the basis of a price tag.

This is about sticking to one supplier of a particular item to build relationships, loyalty and trust in a way minimizing total cost in the long run, relationship marketing essential.

Continuous on-the-job training

Training should be ongoing for organization in order to influence continuous improvement in the company's operations because surely when the personnel improve their skills then the business will also move forward.

Drive out fear so that workers work freely and effectively,

This will mean that employees would freely give their input and when they are successful they feel important and motivated to do more for the company too.

Breaking barriers between departments

All departments in an organization are connected in one way or the other, which means each department can benefit out of making decisions togeth-

er to be broken between departments if all of them are working to achieve one goal they should work together. (Lean Kanban 2011)

2.6 LOGISTIC PROCESS ANALYSIS

2.6.1 Logistics management

Logistic management is the governance of all activities in the process. This includes network design, order fulfilment and transportation management in order to achieve customer satisfaction and company objectives as shown in Figure 3. This also includes all administrative processes and decision making be it financial, information channels and processing customer orders and marketing.

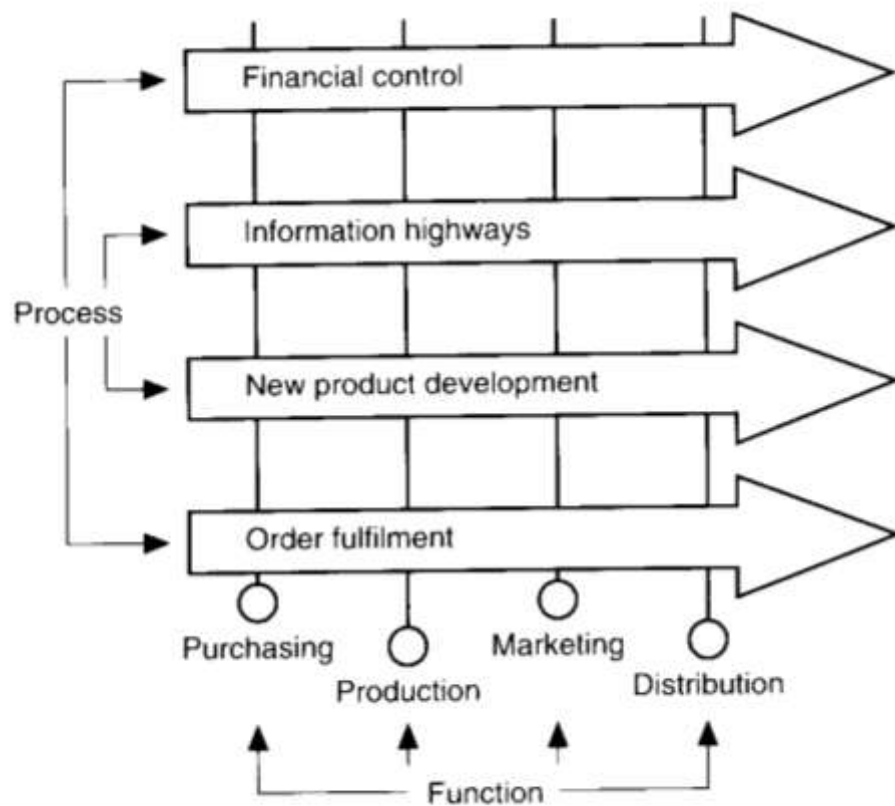


Figure 3 Logistic management (Hewlett-Packard, n.d)

2.6.2 Process Mapping

This is the first stages in the six sigma process and it can be viewed as a value chain as it contributes to the delivery of a product or service. Each step in the process should add value to the following steps in the workflow. The main objective in process mapping is to evaluate all types of processes be it financial, managerial, administrative, design and manufacturing. It helps to bring to light some value added and non value added steps in a process. It helps the organization to see their process boundaries, the current parameters in operation, where data is or should be collected and also shows the inputs and output being measured or showing the need of a measurement system.

A process map should never be mistaken to a flow chart for the later is a brief and the other is an input and output detail of the flow of work to show what is happening and the results can be measured though they might have similarities these can be seen in Table 2 which illustrates the difference between a process map and a process flow chart.

Table 1 Process Map vs. Process flow chart

Process Map	Process Flow Chart
Shows input and output	Does not show input and output
Shows the Step by step of how the process actually works	shows the flow of process
helps to streamline flow	shows decision and alternate pathways
helps to improve process by understand and controlling inputs to eliminate variation	it may show process as it should be not at it is
	helps to streamline flow
	Does not focus on reducing variation

2.6.3 Logistic process mapping

The purpose of logistic process mapping (LPM) is to show or to make the flow of work in a process the organizations so that they get an understanding of the process themselves. This is useful for innovation plans since when companies map up their processes they can easily spot places that need improvement or can trace where problems arise from.

There are two steps that need to be followed when doing the logistic process mapping. The first is to make an activity diagram that shows the detailed process of who does what as shown in the figure, what technical data packages (TDPs) are used in the process what follows next, until the customer is served. This is called the SIPOC approach and this is illustrated in Figure 4.

It is a simplified way of making the process descriptions and it gives a clear view of what everyone is doing in the process and the results might show that its either others doing more work outside their assigned work or others are not doing more so it helps to bring that balance within the process.

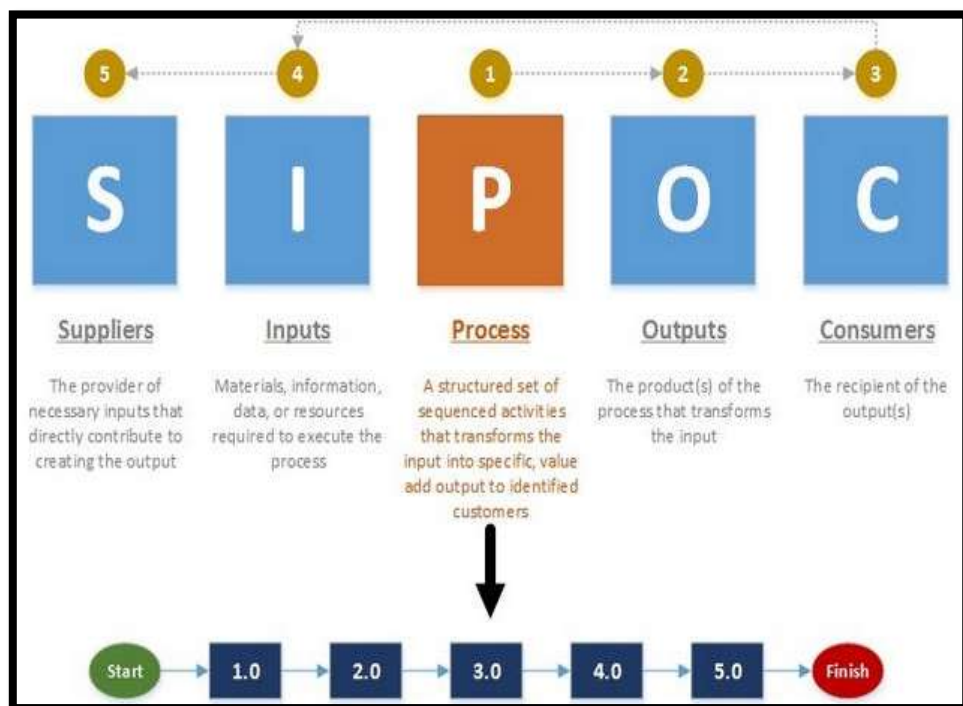


Figure 3 SIPOC (Business analyst articles 2013)

This approach can also help an organization to identify waste in their process which after identifying they can calculate to see the costs that are being incurred in the process therefore making sure that there is total cost management (TCM).

A lot of organization face a lot of challenges in making process maps for administration as well as staff as they may either put too much details that will make the process map complicated or in most cases small details that do not show adequate information for the workers in which case is it important to map the correct items of the process.

Getting the real flow represented in the map using the people involved in the real process not just managers to get the proper actual workflow.

2.6.4 Value stream mapping

When it comes to service providing there three things that a customer may measure an organization service and those are quality time and price in other words this is where the value of most customers is and value is what the customer buys. Though this is mainly used in manufacturing or production firms every organization deserves to see how valuable their processes are.

While process mapping is more focused of the flow of materials, people or products a VSM also looks into the flow of information and cycle time between the stages in the process where VAT is also calculated. There are steps that need to be followed before considering making a VSM and these are as follows.

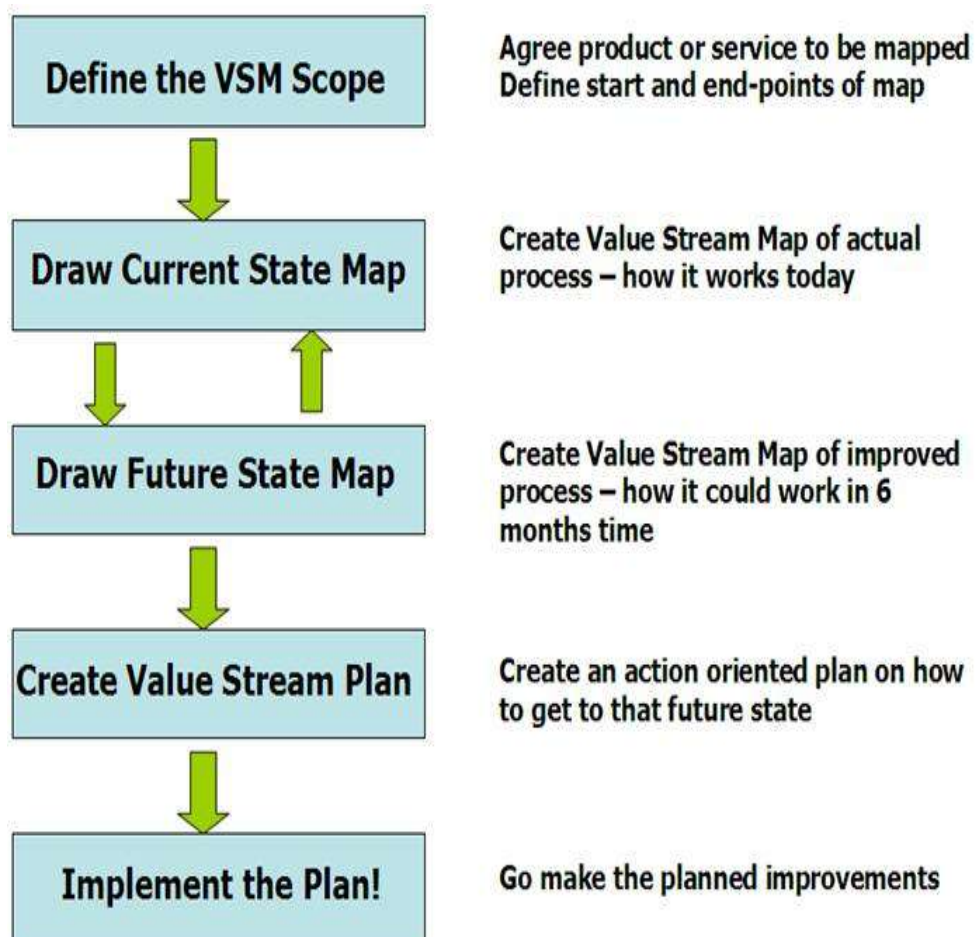


Figure 4 Steps in value stream mapping (Leading edge group 2012)

2.7 Balance score card

2.7.1 Introduction

After making the process map (PMAP) it gives room for the next step which is the most and the core of this thesis. The PMAP gives a picture of the process on ground and this process is supposed to be analyzed to achieve the following goal shown in Figure 5. These are the results that the organization and hope to achieve while attempting this process to understanding, identifying quality and measuring the efficiency of the process.



Figure 5 process analysis goals (TaskMap 2010)

The understanding of the process makes work easier for both management and the staff members who are doing the operations which enable them to make goal oriented decisions, to achieve customer satisfaction. It also boosts the morale to workers as they will see they are part of the process and their input whether great or small contributes greatly to the output.

Analyzing the process is also helps to allocate areas in the process where quality is low for quality assurance. If a company has no way to identify quality in its process then surely it is hard to expect to get it from a customer's perspective.

The greatest achievement in quality is when a customer is able to see the quality you have infused into your process, which will always add to a company's competitiveness on the market.

Every organization having a logistic process on ground should know how efficient that process is this is measured easily when the company has clear visions or goals that would by which they can measure their results. To sum it all up there is a need for a balanced score card (Taskmap 2010)

2.7.2 Definition

The balanced scorecards is a strategic performance management tool developed by Kaplan and Norton in the 1990's at Harvard business school to be used in the business and industrial sectors, government and public sectors or organizations aiming to align business operations with the goals and strategies of the entity.

This approach measures non-financial performance and traditional financial metrics to give a clear and balanced view of how the organization is running by dividing company's performance into four perspectives as shown in Figure 6. This approach narrows down the measuring process to make it less complicated.

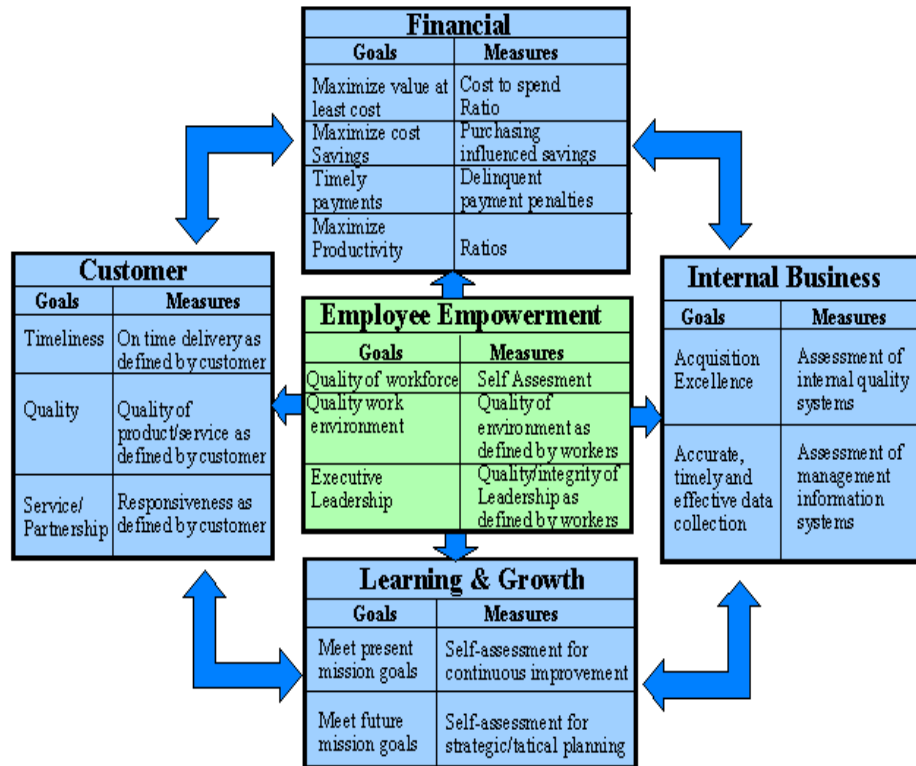


Figure 6 Balanced score card (Kaplan and Norton 1996)

2.7.3 Business Perspectives

This perspective refers to internal business processes. Metrics based on this perspective allow the managers to know how well their business is

Running, and whether its products and services conform to customer requirements which is the mission. These metrics have to be carefully designed by those who know these processes most intimately; with our unique missions these are not something that can be developed by outside consultants.

Recent management philosophy has shown an increasing realization of the importance of customer focus and customer satisfaction in any business. These are leading indicators: if customers are not satisfied, they will eventually find other suppliers that will meet their needs. Poor performance from this perspective is thus a leading indicator of future decline, even though the current financial picture may look good.

In developing metrics for satisfaction, customers should be analyzed in terms of kinds of customers and the kinds of processes for which we are providing a product or service to those customer groups.

2.7.4 The customer perspective

Recent management philosophy has shown an increasing realization of the importance of customer focus and customer satisfaction in any business. These are leading indicators: if customers are not satisfied, they will eventually find other suppliers that will meet their needs. Poor performance from this perspective is thus a leading indicator of future decline, even though the current financial picture may look good.

In developing metrics for satisfaction, customers should be analyzed in terms of kinds of customers and the kinds of processes for which we are providing a product or service to those customer groups.

2.7.5 Financial Perspective

Kaplan and Norton do not disregard the traditional need for financial data. Timely and accurate funding data will always be a priority, and managers will do whatever necessary to provide it. In fact, often there is more than enough handling and processing of financial data. With the implementation of a corporate database, it is hoped that more of the processing can be centralized and automated.

But the point is that the current emphasis on financials leads to the "unbalanced" situation with regard to other perspectives. There is perhaps a need to include additional financial-related data, such as risk assessment and cost-benefit data, in this category. (Balance score card institute, 2014)

2.8 Strategy Mapping

All of the four perspectives are linked to each other as illustrated in Figure 7, in a way that by looking into improving one core perspective it may lead to changes in the others as well therefore there is a need for companies to develop a strategy plan that will make this balance scorecard approach more effective and a success.

Strategy maps are communication tools used to tell a story of how value is created for the organization. They show a logical, step-by-step connection between strategic objectives in the form of a cause-and-effect chain. Generally speaking, improving performance in the objectives found in the learning and growth perspective enables the organization to improve its internal process perspective objectives, which in turn enables the organization to create desirable results in the customer and financial perspectives.

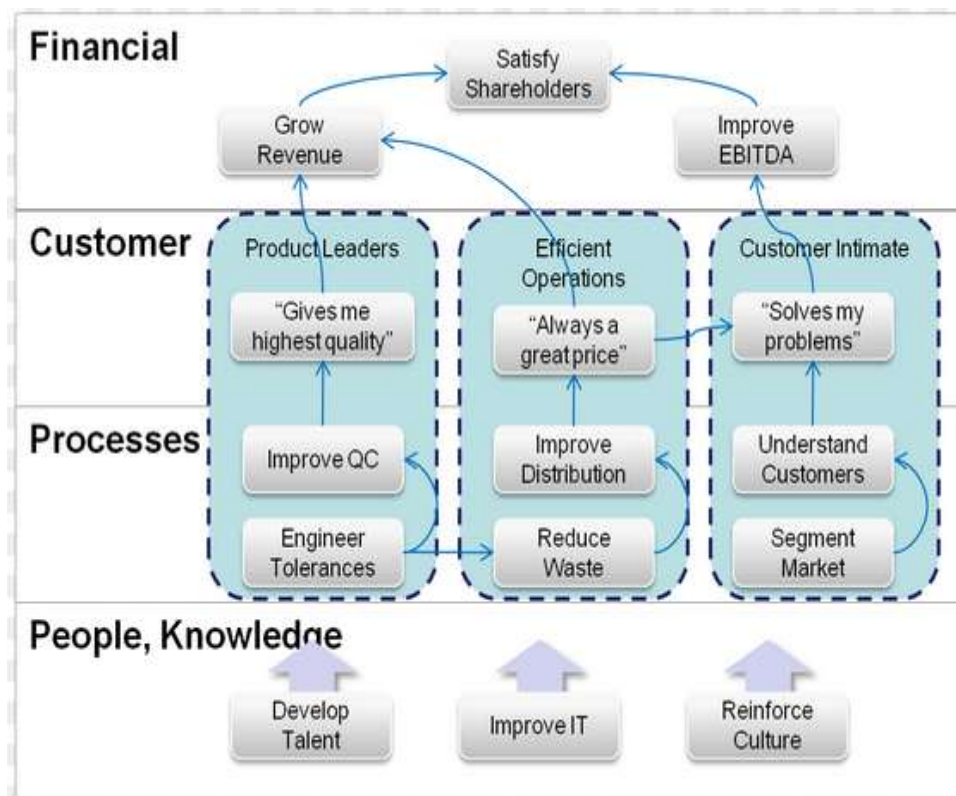


Figure 7 Strategy mapping (Strategy Management Institute 2014)

This describes how the implementation process will happen and this is very important as some organization may have the plans for changes but how they are carried out is what determines the efficiency. (Marr 2013)

3 ORGANIZING FOR EFFECTIVE LOGISTICS

In this modern day top management is centred on quality, value, customer service and this is just a small part aside from customer relationship/corporate profitability and satisfaction. In order to achieve these organizations should come up with strategies that will ensure high levels in their product or customer service quality and value.

Today the standard of an effective organization comprises of self-organized departments, orientation towards continuous improvement and creativity over capital as the most important resource and self determined employees.

Putting up such a system in an organization is not as easy as it sounds in real life; it has a number of barriers that affect the process putting this high quality program in an organization. There are top six barriers that are common, they relate directly to the organisational and the employees and some of these are as follows:

- Changing of the organizational culture
- Establishing of a common vision in the whole organization
- Gaining senior executive commitment
- Generate employee ownership of the quality process
- Changing of the organizations processes
- Conducting training and educating employees.

3.1 Importance of an effective logistics system

The most crucial elements of a supply chain management are effective and efficient logistic organizations and the problems that the organizations do not arise from strategic decision making but rather from the organization's;

- Structure
- Systems
- Mission
- People
- Corporate culture
- Reward structure

The way that these factors they come together to make change happen is critical and that is the reason why most organization have been working or Rearranging the whole process instead of just working on minor part of the organization and these factors are connected. For example changing the mission without changing the system without will slow down the process and also changing the system without changing the structure will affect the flow of work. (Stock & Lambert 2001, 582-583).

4 RESEARCH AND FINDINGS

4.1 Procedure and targets

The approach in this thesis project was to first understand the internal process before getting the perspective of the company owners so that the findings would be compared to the owners' perspective of the business processes.

The research procedures included interviewing customers and owners of the company, also analyzing the work environment to see if it had any impact on the output of the business. There was also a need to look into the resources that were available and also to look into the company's procedures.

The first step was to see how the operations were linked to each other and how information flowed as well as how the information was stored and managed. The work involved listing the activities and the people who carried them out, in order to map out all the functions. The goal was to draw a process map on handling orders and the information flow to get the internal business perspective of the balanced scorecard.

After having drawn the process map as explained by the owners, the next step was to analyze the process. Here the author compared the actual activities that took place on a daily basis and then asked the customers about how they saw the services just to get the customer perspective of the balanced score card.

Another aim of the process map was also to show the functionality of the finance department. This helps managers to measure the input and output to see how effective their operations are. Managers can then make plans to either increase sales or cut costs depending on how they view the company's financial situation.

For the learning and development of the organization, this thesis would broaden the owners' perspective and shed light on the effectiveness and efficiency of processes to indicate which areas needed improvement. The project would also reveal if there was waste in the process and how quality can be imprinted in a way that will be visible to the customers.

4.2 Interview methods

For the interviewing of the owners of the company the author entered the office premises to ask questions and to observe some of the processes. The arising issues were analyzed with the help of the company owners the situations and discussions were conducted through email messages.

There were some questions that had to be made to the customers by email. It was positive that the customers were willing to take part in the survey. The customers were open and honest about their views on the services that they received, the value that they saw in the services and what it was they did not like.

Names of customers:

- Customer 1**
- Customer 2**
- Customer 3**
- Customer 4**

Customer perspective questions:

To get the customer perspective manifested, the following questions were asked:

- 1) How often do you use our services
- 2) how do you like our customer service
 - a. Very good
 - b. Satisfactory
 - c. Could be done better? If yes, please give a suggestion how it would be changed.
- 3) Give your opinion on our service management not only on the travelling but also before and after travelling.
- 4) Were you satisfied with the last services we gave you?
- 5) What would make your journey with us more pleasant?

4.3 Findings

After drawing the process the first time it was lacking some essential parts but after a close analysis those missing parts were realized and included in the final process blue-print.

Below are the findings from the interviews conducted by email. These are responses from all the regular customers.

Customer 1

- They used the company's services almost every month, sometimes even more often
- Excellent service, fast response to inquiries and reliable
- Always satisfied
- Nothing to add ,customers were always happy and pleased

Customer 2

- Was a regular customer earlier but not anymore
- Described the customer services as very good
- They explained that the customer service provided was always available 24 / 7 to customers
- They pointed out Hatusen liikenne had taught their taxi and bus drivers to provide services with the same good attitude as the owners
- They said Hatusen's immediate response to calls and customer requests made the service easy and reliable.

Customer 3

- They used the services monthly, 1-5 times a month
- They described the service as very good
- They used other local bus companies and by far Hatusen liikenne had the best customer services in every possible field.

-
- They get answers to their emails very fast and if they had to wait longer, they were sure an email was to be received
 - They said they were very satisfied with no exceptions.

Customer 4

- They used Hatusen liikenne services once a month
- Customer services were very good and their expectations were met
- They described the service management as very good and in addition they pointed out that the staff members were helpful and understood the customer needs
- They stated that the vehicles are very good and modern
- They expressed their satisfaction with the last services they had received and said that they will be booking many trips in the future.

5 CONCLUSION

This research project has revealed a couple of facts when it comes to the logistic process analysis. It showed that companies may have goals, but it is impossible to achieve them if the managers do not understand the kind of environment they have and the kind of process they are running. The way operations are run determines whether the goals will be achieved or not as well as how long this will take.

Human resource management is vital to the effectiveness of a service business. Management can be good at planning the processes but making sure that the ones who deliver the service are being professional, will either give a good or bad image of the whole organization.

Process analysis when properly conducted will lead to the improvement of an organization and will also create new realistic goals that will move the business forward.

A balanced score card can be an indicator that can point out areas from which the companies can see which part is lacking in their operations. This is different with every organization there is no telling which is the perfect way to measure the operations. All four perspectives are connected to each other. Every organization can come up with their own way to balance their scorecard.

If companies are unable to measure quality in their operations they will not know what aspects of their business they can brand and use as a competitive advantage on the competitive market front.

When results from the customer perspective are very good it is time to make plans for service excellence, which will result from the company's work towards continuous improvement. Management should also be planning on how to make their services better.

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SIPOC TABLE

STAFF MEMBER	ACTIVITY	REPORT RECORD	SYMBOL
sales operations manager	receive an email or call from customer and make offers or contracts with them		
Personnel manager	Make contracts with employees ja sopii muista työntekijöihin liittyvistä asioista kuten lomat ja työterveyshuolto		
Autopäälikkö (person who take care of buses)	Organize oil changes, air filters, tires changes, inspections and things like that		
Managing director	Bank issues (loans and other financing contracts), Finnvera contract if needed, Fuel company contract and kilpailutus if needed.		

First process map

