QUALITY MANAGEMENT SYSTEM AND ISO 9001:2015 IMPLEMENTATION PLAN

case Lauta Oy

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ABSTRACT

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ISO 9001 certificate for quality management system is known worldwide and internationally recognized. According to International Organization for Standardization there are over a million organizations that have been certified to ISO 9001 from over 170 countries. Additionally, there are unknown number of organizations that follow the standard either fully or partially without applying for certificate. There are undeniably benefits related to following the standard even without the certificate but it is important to keep in mind that those are two different things. Key difference is that certification always requires third party audit that assures unbiased professional outlook on quality management in an organization as whole.

The objective of this thesis is to find out what are the requirements for an organization to get certified for ISO 9001:2015 and to prepare client organization for possible certification audit. In that purpose standard has been the ground for building quality management system and already existing processes related to quality have been revised based on clauses of ISO 9001:2015. ISO 9001 project will continue beyond this thesis and final judgement for application of the certificate will be done by the stakeholders meeting later during 2018.

Most important principles introduced by ISO 9001:2015 are importance of risk based thinking, context of an organization and Plan-Do-Check-Act-cycle. ISO 9001:2015 project is executed by following Plan-Do-Check-Act-cycle principle. Planning and executing the changes are part of this thesis and will be followed by checking and acting phase after summer of 2018. Organizations conditions, for example size, location, economic situation of a market place and changes in technology, are on focus as well as risk analysis.

Key words: context of organization, ISO 9001:2015, Plan-Do-Check-Act-cycle, quality management, quality management system, risk based thinking
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## ABBREVIATIONS AND TERMS

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<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>CE</td>
<td>Conformité Européenne, certificate to proof quality and conformity for products manufactured or sold in European Economic Area</td>
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<tr>
<td>Intranet</td>
<td>Network designed for exclusive use of a staff of an organization and containing shared information and services</td>
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<tr>
<td>ISO</td>
<td>International Organization for Standardization</td>
</tr>
<tr>
<td>ISO 9000 series</td>
<td>Standard series that includes ISO standards 9000, 9001 and 9004</td>
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<tr>
<td>ISO 9001:2015</td>
<td>Latest revised version of ISO 9001 standard which against organization can apply a certificate</td>
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<td>PDCA-Cycle</td>
<td>Plan-, Do-, Check-, Act-Cycle</td>
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<td>QMS</td>
<td>Quality Management System</td>
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<tr>
<td>TQM</td>
<td>Total Quality Management</td>
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<tr>
<td>Wiki</td>
<td>Web based site that can be modified by its users. Can be used for internal communication and project management of an organization</td>
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1 INTRODUCTION

In any type of company or organization no matter the size there is always ways to improve the quality. To improve quality only thing that is required is the will to see things objectively and to change. Quality improvement is more than quality control and one of the few things that can be improved without investing a lot of money. It is self-evident that for example better machinery can improve quality of a final product and costs a lot of money but quality improvements can be inexpensive as well. Often shaping processes, improving communication, providing clear instructions and offering appropriate training can be effective ways for improvement without big investments. In return quality improvement should satisfy both internal and external customers. Consequently, profits usually grow as well. This project is much longer than the part that is done for this thesis due to the fact that quality and quality control is a broad subject.

Lauta Oy is a small company: has 17 permanent employees and every summer from 3 to 5 seasonal workers. From the most part when a person is employed they stay in the company for a long time. Committed employees are advantage for the company. Since there is not much change in people, work instructions have not been a priority. There is low level of hierarchy within the company and many things are based on trust. Guidelines are mostly result of how things have evolved themselves and everything seems to get done as it should. Lauta Oy is family owned since 1948.

Top management has concrete plans for the future and improvement of quality and quality management system is part of that. To find out what the baseline where to start this project and to get an idea where to start it is important to familiarize with research of information about quality, quality management and ISO 9000 standard series. Thesis starts with theory about quality and quality management with the parts that apply for making implementation plan for ISO 9001. ISO 9001 was revised 2015 and it is more flexible and easier to adapt to any business than its previous version. On the other hand, since it gives more options for organizations to choose how to fulfil its requirements it is more ambiguous than before and to be able to fulfil the requirements it is helpful to understand some basics of quality management systems, total quality management and quality control.
Standard guide for ISO 9001:2015 was bought for Lauta Oy as a translation into Finnish so that it can be used later by anyone. Previous updates have taken 7-8 years to be published so 2015 version most likely will be valid at least for next five years. Lauta Oy did not have previous version of the certificate nor fully implemented quality management system and because of that there was more work than just updating the processes to match the revised standard. This can be seen also as an advantage since there are no old processes related to previous version of the standard that need to be undone. As a part of this thesis some processes were changed to match the standard requirements and for others a plan about how and when changes will be done.

ISO 9001 includes all organizations processes and means that everything in the company must be reviewed and assessed keeping in mind the standards requirements. Since external audit is one of the requirements for certificate it is important to be able to show how requirements are being followed for outsiders. For example, ISO 9001:2015 does not require quality manual as its previous version did but still it can be a valuable tool in some cases for fulfilling requirements of the standard. To help management further in their decision-making estimates of how much the certificate would cost will be asked from companies providing certification services.

1.1 About Lauta Oy

Main income for the company comes from production and selling of wood products for consumer market. Products include for example panels, skirting boards and decking materials. Reseller network has gained importance in recent years and the focus has shifted more to that direction. Along with own production in planing mill, company has a traditional hardware store. Both consumers and small businesses are using the store. Future plan is to focus more on the production and wood, especially for products for interior decoration.
PICTURE 1. Lauta Oy from the air (Photo: Lauta Oy 2018)

Turnover in 2016 was 3.4 million euros and grew by 11.8% compared to year 2015. 2017 turnover was 3.8 million euros (+10.5%) and 2018 predicted 4.5 million euros. As turnover grows another goal is to increase profits as well and one way to do this is to improve overall quality. Another way to measure success has been to follow amount of deliveries since that describes quite well the expansion towards reseller market. Deliveries via Kiitotinja are expected to increase from 1800/year to 2000/year.

Sixth warehouse with a modern design is under construction and according to plan it will be functional for spring 2018. This is expected to improve efficiency for the outgoing deliveries and reduce the need for seasonal workers. Moreover, new warehouse will help with increasing volumes and lower the manufacturing costs since bigger batches of raw materials and ready products can be stored. Since the focus is growth in reseller market the volumes are increasing along with that.

Management has a vision of which direction the company should go in the future and that requires planning for changes now. Changes in business are leading to importance of revising processes within the company. ISO 9001 certificate came to discussion because it can be a helpful tool to improve current practices. Certification process in general is already familiar within the company since it already has PEFC ST 2002:2013 and 2001:2008 certificate to authenticate origins of wood products. All manufactured prod-
ucts are CE marked to ensure conformity of the products for the customers. Since experiences of these have been positive and therefore certifying a quality management system would be natural continuum. Certificates are more likely valued by other businesses rather than consumers and if the focus in the future is in selling for other businesses that might give Lauta Oy an advantage.

As mentioned Lauta Oy is and always has been family owned company. This history reflects to the way everything within the company functions and to the company culture. Being a local business plays a role as well since there are regular customers who have been around for decades. Currently customer base is changing and customers are more often from other parts of Finland. This means company needs to change as well to accommodate those customers. Sometimes pleasing both old and new customers can be challenging. Company is still small and everyone know each other well compared to bigger organizations. Size plays a role on how company operations are set up and to the fact that everyone within the company need to know how to do more than one type of tasks. Changes to more organized processes are relatively recent. For example, current employees were talking about working hours and it came up that it is not that long ago that there was no plan for schedules or written contracts of employment. Situation has been that way because there was no need for formalities in a small family owned company.

PICTURE 2. Lauta Oy logo (Photo: Lauta Oy 2017)

1.2 Background of the thesis

This thesis is done to improve processes in Lauta Oy, start the setup of a quality management system and to prepare the company for applying ISO 9001:2015 certificate. Purpose is to find out how to re-organize and improve processes to match requirements of ISO 9001 standard and to have better picture about the certificate. This standard was chosen
because it covers all processes and is meant for improving quality and efficiency. It provides a systematic approach for fact based decision making. Standard also takes into account continuous development. Furthermore, it is internationally recognized and well known. Later management can evaluate if it is necessary to apply for the certificate or not. Certificate is secondary in this process and the guidelines are at this point used primarily to establish efficient quality management system.

Quality is important and valued in the company but currently there is no complete quality management system in place and only place where quality is being supervised systematically is in production. So far there has not been major need for quality management system but since the customer base is changing, growing and spreading it would be beneficial to develop processes. Everything is working at the moment but developing improvements before it is critical has been seen beneficial for the company. This gives time to make changes with care. Goal is to involve everyone in improving quality and to have clear goals for the improvement.

Certificate is a tool to ensure especially new customers that the company is committed and values quality following the requirements of the standard and to create effective quality management system. As mentioned before certificate alone is not the primary goal of this project since that alone does not guarantee quality. Currently there are no customers that would specially require Lauta Oy to have the certificate for ISO 9001. Ultimately getting certified will be decided by shareholders meeting.
2 QUALITY AND QUALITY IMPROVEMENT

Background for ISO 9001 standard is quality management and it is a certificate for quality management system. To be able to improve quality there needs to be fact based understanding of the current situation as well as a plan in place for measuring an impact of any changes that are being implemented. Quality is a relative concept and consists of several aspects and it can apply to almost anything around us. In his book about Total Quality Management Lennart Sandholm, management consultant, defines quality to be products fitness for use (Sandholm 2000, 11). Product is always primarily judged based on its meant use even though there are many factors that contribute to overall quality and quality expectations. For example, if panel is being delivered on time, it is affordable, durable and beautiful but it is impossible to install, then all the good qualities do not mean anything since it cannot be used for its purpose.

Often focus is on external customers and company’s internal customers are forgotten (Sandholm 2000, 14). Both are important in the quality point of view, by improving quality within the company it will affect the final product and reflect to external customers satisfaction. Sometimes people are focused only on their own job without taking into consideration next process or they are oblivious about why they must do something that seems to be meaningless in their point of view. Most of these things could be fixed with good communication. For instance, if the person responsible for producing reports about manufactured goods does not know why some of the numbers are important it might lead into missing or insufficient information on reports. Situation cannot be fixed if the person who suffers from uncompleted information does not inform anyone about the problem or does not explain the situation clear enough.

Quality improvements can also improve revenue. There are many ways that quality improvements can help bringing in more profits. Manufacturing costs can be lowered and higher sales can be result of improved quality (Sandholm 2000, 28). With better quality, not only material costs can be lower but also less time will be used for processing complaints from customers and that time can be directed towards something productive. Time used for quality control can also be reduced. For example, time picking out defected products from production line can be reduced. On the other hand, when internal customers
receive better quality services and products that improves commitment and satisfaction toward the work and employer as well as improves productivity.

2.1 Quality management system

Quality management system, further referred as QMS, gives the company a tool to control and improve quality throughout or in selected processes. There are many definitions for QMS, for example this is how Business dictionary defines QMS to be:

A system by which an organization aims to reduce and eventually eliminate nonconformance to specifications, standards, and customer expectations in the most cost effective and efficient manner. (Business Dictionary)

As this definition implies, QMS is used to improve efficiency and to better fulfill customer expectations. Customer in this case refers to both internal and external customers. How QMS is being executed varies and can look very different in each company depending on size and field of operations of certain business.

Having a clear system in place makes it simpler and more systematic to correct mistakes and prevent them in the future. One purpose of QMS is to produce data which will help management to make better decisions based on facts. Interpretation of data is important part of effective QMS. QMS can be implemented to any process that is going on in the organization but choosing where it is needed is important.

Good quality management system should use and measure indicators that are important for the company. Sometimes things that are easy to measure might not be the most important ones to follow. QMS should be built around the most important indicators in an efficient way.

ISO 9001 requires that total quality management needs to be a part of the QMS. Each person needs to be involved and work together to reach total quality management, later referred as TQM, within the organization (Slack, Chambers & Johnston 2010, 509). This means more than quality control for the final product. Having TQM approach being part
of the QMS means that organization strives for doing things right the first time, continuously improving the processes and valuing customers high. By following ISO 9001 organizations can create a system that fulfills TQM description.

2.1.1 Evaluation and audit of a Quality Management System

QMS needs to be audited regularly to ensure that the system is working. Changes are needed time to time since processes can change over time. Internal audit is done by designated person from the organization and external audit is done by an outside party. Internal audit is always needed but external audit usually is only done when an organization looks to certify their QMS. External audit can be required also by customer for example in case an organization does not have certificate and the customers own QMS requires certain level of quality from its suppliers. This can be arduous and that is why certification can save time and make it easier to have new customers.

ISO 9001 standard can be used as a basis for internal or external audit (Wadsworth, Stephens & Godfrey 2002, 69). It needs to be followed by both if the goal is to certify QMS for ISO 9001. Auditing process needs to have continuity, be systematic and based on facts such as documentation and reports (Wadsworth, Stephens & Godfrey 2002, 71). It is likely that the person responsible for the audit, internal or external, does not know every detail of every process which is why good QMS need to be documented in a way that even an outside party can evaluate the system. User friendly and clear QMS benefits the organization as well.

2.2 Standardization as a tool for improvement

Standardization is a tool to modify process to be carried out in a way that according to standard is a good way to do it. This makes the process more predictable and its results can be compared. Standards are usually devised by a board of experts. Standardization purpose is to make products safer and better quality, ensure product conformity and to promote efficiency (International Organization for Standardization). Standards can be applied for businesses and business functions but also for things such as time zones or mathematical symbols. There are international and national standards and for some of them
organizations can apply for certificate which proofs that the standard requirements are being met. For example, Cisco provides several certificates for IT professionals which can be used as a proof of knowledge of their expertise. Process of getting certified depends on a standard that is being applied for but third-party audit is common requirement. There are organizations which follow guidelines given by a standard and that might benefit them by improving processes and policies internally but without unbiased third party audit that is not the same thing as certificate.

International Organization for Standardization, later referred as ISO, is international top organization for creating standards. It has no government participation and 162 countries’ national organizations are part of ISO (International Organization for Standardization). As the organization has no government participation legislation has nothing to do with its standards and it can function despite differences in legislation in different countries. Moreover, the goal for the organization is to improve business practices not by force but by voluntary participation. Since almost every country in the world has a national organization as a member of ISO it makes the organization big influencer worldwide. ISO central secretariat however is in Geneva, Switzerland (International Organization for Standardization).

Standards that ISO publishes are developed for need in the market (International Organization for Standardization). It has been seen beneficial to follow guidelines that are designed to be effective. All ISO standards are discussed and created by ISO technical committees (SFS-EN ISO 9001:2015, 42). Purpose is to improve practices globally and equalize the practices. This can make organization practices more predictable and predictable companies are often seen as more reliable in other ways as well. There is no certificate for every standard. Furthermore, since following these standards is voluntary also certificates are seen more as an achievement for an organization and often used as part of marketing strategy. ISO standards can be used as a tool to for example improve quality even when the certificate is not being applied although it is important to remember that it is not the same thing as having certificate.

2.3 Quality in Lauta Oy
Quality is valued in Lauta Oy over low prices. This approach is vital because of the high competition in the market. There are hardware store chains close by that are branded to be cheap for example Byggmax, Puuilo and Bauhaus. Although Byggmax is now closing in several locations, including in Tampere, there are still several other bigger stores that have bigger volumes and can compete with price. For example, Puuilo opened 2017 very close by and is providing a mix of products from candy to cutting wheels, almost anything else but wood, with affordable price. It seems that they might take over a chunk of the market for tools, glue, garden products etc.

Lauta Oy has lately focused more on high end, specialty and quality products. Since company has own planning mill quality approach has mostly been about quality control. That is also something all employees associate with quality. Employees were asked about how they see quality and all answers were about product quality control. Quality control is only one part of quality management and the need for quality control related task such as picking out defected products should reduce along with improved over all quality. Having own production gives the company better possibility to impact on quality of the products and to choose what kind of products are being produced. What makes even quality in products challenging is the material itself is natural, trees always have branches and it shrinks when it dries.

After discussing quality within the company, it seems that there is need to provide more information about quality and total quality approach for the employees. Since currently quality control is being recognized as quality, it is the starting point for the most. Quality needs to be seen as broader concept effecting everyone and everything in the company. It will show as much inside the company as it does for outside customers. Additionally, quality is something everyone can affect and improve rather than only something to do with production.

Quality control is something concrete and that is why it is easy to associate with quality. To make quality in other processes less abstract concept and to fulfil ISO 9001 requirements some indicators could be introduced. For example, average handling time of production reports, money value of expired or damaged products in certain time period and information about handling time of new orders. These all are related to risk based thinking and continuous improvement promoted by the ISO 9001:2015. Moreover, making decisions with data of these kind of indicators is evidence based. Complication with setting
up and observing these indicators is that it must be done systematically, take enough time to make conclusions based on the data and all indicators need to serve purpose. The biggest challenge will be choosing the right indicators, choosing the right competent person to follow them and to find a way to use collected data for improvement.
3 ISO 9001 STANDARD IN BRIEF

This chapter is written in point of view of implementing ISO 9001:2015 in Lauta Oy and includes some background about the standard. Altogether ISO 9001:2015 consists of ten clauses which are further divided into subtopics. As the standard can be applied universally to all types of businesses not all points apply for Lauta Oy or are not as important. In addition, as mentioned there is no QMS in place currently and in the frame of this thesis focus will be on the things that can improve and benefit organization the most. Since there is no previous certificate also comparison to the previous standard ISO 9001:2008 is left to minimal.

The most important topics introduced by ISO 9001:2015 are continual improvement, involving people, fact based decision making, leadership, favorable supplier relationships, focus on processes and customers (British Assessment Bureau, 2017). Every clause of the standard includes importance of people and therefore each person in the organization should be involved with the QMS. Leadership, management and allocation of responsibility have great importance and are core part of the standard. Management should be fact based and each task and process needs to be on someone’s responsibility. Additionally, organization needs a leader or leaders to provide vision and to inspire others.

ISO 9001 includes requirements for quality management systems and is the only standard from ISO 9000 series which against organizations can apply for a certificate. It was last revised 2015. Some of the previous requirements were removed and the standard is now more flexible and fits better for all types of organizations. For instance, requirement of quality manual has been removed however it still might be good tool for organizations to fulfill requirements of documentation. Now it is not required and organizations which do not benefit from it are not required to compose it only to meet the standard. However, documentation is required in several processes. In case of Lauta Oy it seems that quality manual is not something that the company needs at the moment since it already has well documented processes and it is more beneficial to use and improve existing system. Another significant change to the standard was removal of exclusions. Before organization had to appeal for exemption if requirement of standard did not apply for the organization. In the 2015 version it is no longer necessary and this gives organizations more resources to focus on things to improve quality rather than explaining why something cannot be
done. Risk based thinking is also given more importance in the revised version and some of the terminology has been modernized.

Organizations which have the certificate for ISO 9001:2008 have time until September 2018 to update the certificate (International Organization for Standardization 2015, 6). That gives maximum of three years for organizations to make changes for their systems. ISO has produced guides and information on how to implement the necessary changes. It can be assumed that 2015 standard will have similar transition time.

As mentioned Lauta Oy currently does not have ISO 9001 certificate so everything will be built around the revised standard ISO 9001:2015. Standard itself has seven clauses that list requirements, recommendations, permissions and possibilities. ISO has added notes as well to clarify what the requirements mean in practice. As mentioned not everything in the standard is required but it also lists permissions and possibilities. All requirements must be executed in a way that auditor can verify that requirements are being met albeit some are more abstract than others. To learn more about the standard and audit process books that are written about previous version of ISO 9001 are partly applicable and useful since there is limited amount of published information about ISO 9001:2015 apart from standard document itself.

3.1 Organization circumstances that affect implementation of ISO 9001:2015

Standards requirements begins in chapter 4 with context of the organization. Standard requires organization to provide context for quality management system and monitor and review information internal and external factors affecting the organization (SFS-EN ISO 9001:2015, 48). Since the standard is flexible, it is useful for organizations to define which kind of organization is in question and based on that how to best implement ISO 9001.

Once the best possible QMS is in place organization needs to keep improving the system and to evaluate for which processes QMS is essential (SFS-EN ISO 9001:2015, 49). Since the standard gives the organization a lot of freedom on how to implement it but on the other hand all the decisions made for QMS need to be justifiable.
In case of Lauta Oy there are things that have an impact on how the standard can be put in place. First company is relatively small when it comes to number of employees and it is family owned. Second important notion is that computers have an important role in the workplace but not everyone use them daily. Also, the level of knowledge about computers varies a lot and should be considered when changes and new instructions are made. The third important factor is that company has three clearly distinct functions which are later shown in Figure 2.

3.2 Management and leaderships role in implementation of ISO 9001:2015

Management’s commitment and involvement is important and company needs to be able to show it during audit as well. Management is expected to establish and communicate effectively quality policies throughout the organization (SFS-EN ISO 9001, 51). This can be audited by questioning employees about the policy. There are some basic things that only the management can provide that are necessary for all the processes to function properly such as providing necessary resources and overlooking that guidelines are being followed (SFS-EN ISO 9001, 50). These are easy to verify in the audit point of view since control system should be documented in order for it to be objective and accurate and if there are not enough resources spotting for example long lines or waiting times is easy. Ultimately the management has all the responsibility of the QMS and improving it. This is to say that it is managements responsibility to involve everyone.

As well as focusing on process based thinking, in the latest version of ISO 9001 risk-based thinking is something that is expected of management to promote (SFS-EN ISO 9001, 50). This means that risk is something that should be taken account for systematically throughout all the processes rather than as a separate function. When risk is taken into consideration from the beginning of the process it enables business to better prevent problems. When defining a risk, it can mean not only avoiding risks but also taking risks when the organization tries something new for example, product, service or supplier, or sharing a risk (SFS-EN ISO 9001, 52).

Final requirement that is mentioned about leadership and managements responsibility in the ISO 9001:2015 addresses importance of clear hierarchy within the organization. Idea is that all functions are someone’s responsibility so that everything will be taken care of.
At the same time message needs to be that even when someone is responsible to take care of certain task it does not mean no one else can do it. This is especially important in a small company as Lauta Oy since ultimately everyone should be able to most tasks in their own place weather it is planning mill or the store. Everyone are part of the system and part of improving the QMS but to make sure everything gets done as it should someone, usually managers in the lower levels of organization, needs to be accountable for it. Delegating part of the responsibility closer to processes top management also can improve employee commitment and gain important ground level information from different processes.

### 3.3 Planning and PDCA-cycle

Planning includes everything from setting up QMS to improving it. Once the system is in place planning should continue and continuous improvement happen because of it. Organizations often do evolve over time so it is important to keep planning for improvements to keep up with changing circumstances as well as improving the original plan. One of the key components and tools of ISO 9001:2015 is Plan-Do-Check-Act cycle shown in Figure 1. As a cycle, it is meant to be repeated over and over to keep organization improving systematically based on facts. To fully understand the figure, it is helpful to read the standard and with each clause that is referred in the figure with a number in brackets do comparison.
To facilitate planning organization needs to be aware of skills and experience of employees. Records of further training are needed as well to better plan needed trainings in the future. ISO 9001 requires organization to determine resources that are needed and who is responsible when planning on reaching quality objectives (SFS-EN ISO 9001, 52). With these records organization can fulfil these requirements as well as base the decision on facts.

All changes need to be well planned and the need for a change must be evaluated (SFS-EN ISO 9001, 52). Continuous improvement is encouraged by ISO 9001 but still need for the changes has to be evaluated and well planned before implementation. This includes predicting possible outcome, resource availability and responsibility distribution (SFS-EN ISO 9001, 53). Checking resources available and dividing responsibilities can be based on facts but evaluating possible effects of the change is trickier.

To demonstrate these steps in audit organization needs to be able to show process that evaluates why something needs to be changed, what is desired outcome and what are
possible risks involved. Furthermore, auditors will make sure that quality objectives are known and not in conflict with quality policy (Kanholm 2002, 41).

### 3.4 Customer relations

Customer relations are important for any company and even more for the companies that produce more expensive products. Expensive products face higher expectations and customers often demand more from the company as for example better customer service. Ultimately customers are always the ones bringing in the money and fewer there is fewer can be lost. Since Lauta Oy is now heading for selling more for resellers than straight to consumers customer relationships are more important than before. One reseller can bring more revenue in one sale than a single consumer over a lifetime.

Along with customer feedback also customer satisfaction needs to be overseen (SFS-EN ISO 9001, 64). Organization can assume customers are satisfied when there is not a lot of reclamation or negative feedback but that is only one part of finding out about customer satisfaction. Most neutral, good and slightly negative feedback does not reach the organization unless it is actively asked for and easy to give.

Customer focus is part of managements responsibility and improving customer satisfaction is important part of all processes (SFS-EN ISO 9001, 50). This includes management leading the organization to better understand customer needs and avoid problems with product conformity. In a small company like Lauta Oy where everyone is working close to each other what management does or promotes has immediate effect. ISO 9001:2015 also includes requirements on communication with customers and it will be topic in next chapter 3.5 of this thesis.

Customer feedback is important and moreover it is important to do it systematically and analyze the results (Sandholm 2000, 140). By analysing the received feedback, it is possible to do more complex analysis of what could be done better in the company. As customer feedback comes from outside of the organization, it can hold valuable information that otherwise might be missed. Focus might be on wrong place if the information does not flow from customers to the organization. For instance, if organization is developing the best board for decorating a sauna but all the customers who are purchasing the product
are further modifying it to use it in their living room instead, with help of feedback organization could find out that by focusing to produce the same product for living room decoration with little modifications customers would be happier and possibly reach bigger market.

3.5 Supporting functions and documentation in the organization for ISO 9001:2015

Supporting functions are important for success of the standard. These consist of everything people do within the organization. Clause seven of ISO 9001:2015 specifically lists these factors to be for example people, environment for the operation, competence of the people, communication and documented information. Each of them need to be taken into consideration when implementing the standard. In general, all of these also apply to every organization type and size.

Documentation has obviously been mentioned before and it is important part of any organization. Deciding what is being documented is as important as how to handle and store these documents. Both documentation specifically required by the standard and documents that are seen as essential by an organization are required to be part of QMS (SFS-EN ISO 9001:2015, 55). Amount and type of these documents can vary between organizations apart from documentation required by the standard. Documentation and who has the right to create a new document or modify and update an old one needs to be regulated (SFS-EN ISO 9001:2015, 56). It is helpful to use similar format and style for all documentation so that it is as easy and fast as possible to find the right information.

Quality objectives are required to be documented (SFS-EN ISO 9001:2015, 52). These need to include measurable information and the data needs to be systematically stored and used for further improvement. Furthermore, it is useful if the same document includes a plan for achieving the objectives. Plan needs to include information on, what it is about, who is responsible, schedule, required resources and how the results will be measured (SFS-EN ISO 9001:2015, 52).
Emphasis throughout the ISO 9001:2015 is on people and having right role for each person in the organization. Another key factor is to share responsibility and to provide sufficient training for each role. There needs to be documented information about competence of people (SFS-EN ISO 9001:2015, 55). This provides evidence for the audit but also helps the organization to make fact based decisions when new tasks or roles are handed out. Related to competence ISO 9001:2015 requires everyone in the organization to be aware of quality policy and things related to it (SFS-EN ISO 9001:2015, 55). Being aware of the quality policy and objectives is the first step and later it is the QMS which will measure whether it has been followed or not and how to improve.

Communication is important for any organization. That means all communication within the company as well as external communication done by organization with for example shareholders, customers, general public or politicians. Important roles and factors for communication are questions about what to communicate, when, to who, which channel to use and who is responsible for communication (SFS-EN ISO 9001:2015, 55). In bigger organizations there can be public relations department fully dedicated to communicating with media and general public but with smaller organization it might not be as clear who can give a public statement on behalf of the organization. To meet the standard this role needs to be established. Inner communication is often a mix of channels such as e-mail, meetings or intranet. To make sure essential information reaches everyone choosing the right channel is important. For meeting the standard requirements organization needs to be able to show how, what, who and to who communication about different things is done (SFS-EN ISO 9001:2015, 55).

The standard requires organization to communicate with customers by asking feedback, inform about products and services and how customer information and inquiries are being handled (SFS-EN ISO 9001:2015, 57). Customer information in general is in Finland regulated strictly by law. That includes what information can be kept, where, by who, what for and most importantly it needs to be handed to the person who it is about when asked. Furthermore, related to this European Union has passed General Data Protection Regulation that will be affecting this information starting 2018. This regulation is expected to improve EU citizens privacy and rights for their own personal information.
3.6 Design and development

As mentioned before ISO 9001:2015 is based on Plan-Do-Check-Act cycle which is meant to be repeated over and over. Designing is part of planning phase and key step when products and processes are being developed. Standard requires organizations to define and control all processes from product design to ready product. This covers steps that involve functions that include services from external provider, inner and external quality control as well as customer relations after the delivery of the product.

To establish a process for design and development of products the standard lists things to be taken into consideration. The list itself is made with common sense and can be used as a checklist to evaluate whether the process matches the standard or not. The list includes things to be considered for instance how the responsibility and authority is divided, how customer input can be involved in the process, is there something that needs to be documented and what stages are required in the process (SFS-EN ISO 9001:2015, 59). Idea is to avoid unnecessary steps but at the same time have the best possible outcome.

3.7 Evaluation checking and improvement

As mentioned 3.2 management is responsible of guiding organization by evaluating and measuring. Clause 9 further obligates top management to revise QMS regularly and take into consideration all factors effecting the system for instance, customer feedback and audit results (SFS-EN ISO 9001:2015, 66). Management should be aware of everything that happens in an organization and that is what management review is for. Standard divides the management review into inputs and outputs.

Internal audit should be part of QMS and these audits should be well planned and regularly scheduled. Person or persons responsible for doing the internal audit need to be familiar with ISO 9001 and organizations own QMS related processes and documents. Audit results should be then documented and used for improvement. (SFS-EN ISO 9001:2015, 65.)

Organization needs to identify and proactively search for ways to improve customer satisfaction (SFS-EN ISO 9001:2015, 66). There should be actions taken to always search
for improvement even when everything is seemingly working all right at that moment. In the Plan-Do-Check-Act cycle improvement is placed after checking meaning that when something that can be improved is noticed organization needs to act, take the process aside and plan it better. Improvement can happen for example in the product design, manufacturing process, after sales processes or in the QMS itself (SFS-EN ISO 9001:2015, 67).

Nonconformity of a product is something to be addressed systematically immediately after it occurs (SFS-EN ISO 9001:2015, 67). After defining a root cause for the problem and correcting the process it is important to evaluate again whether the problem is fixed or not and nonconformity will not occur again. In this case nonconformity can mean anything related to features of a product or service or an entire process. It is helpful for an organization to keep record of nonconformities for further analysis and as a tool to avoid similar errors with later efforts of improvement.
4 IMPLEMENTATION PLAN OF ISO 9001:2015

Once the requirements of the standard are now clear it is necessary to check the processes within Lauta Oy to see what needs to be changed, how and when. Since there is officially no QMS in place building one based on the standard requirements is necessary. This also means that project takes time but might be somewhat easier to manage since everything can be executed while keeping in mind standard objectives. Some requirements are already being met so focus is on the ones that need change although improvements can be done for everything. For instance, documentation is administrated mostly well so that does not require as much time as some other requirements such as improvement of communication. This does not mean that for instance documentation cannot be done better just that improvements for it are not as urgent.

As mentioned earlier Lauta Oy is small family owned company and that affects how everything within the company works. This is important part of defining context of the organization mentioned in ISO 9001:2015 chapter 4. While implementing the changes this should be kept in mind. The size of the company needs to be taken into consideration as well. Context also means taking into consideration what happens outside of the organization for instance legislation, technological development, economic environment changes etc (SFS-EN ISO 9001:2015, 48). For instance, Lauta Oy has benefitted from a new website where all products have information of price, availability and pictures.

For Lauta Oy there are several aspects that are changing currently such as changes in consumer markets, technology and financial circumstances. For example, development of technology has brought smartphones and tablets to be part of each workday and in the marketplace more often consumers choose to shop in bigger chain stores that can offer bigger variety of products and in some cases cheaper prices. Technology often makes everything easier and more efficient despite seldom technical difficulties. When it comes to competition with bigger stores it has been beneficial to focus on the specialty products and in some cases to become a supplier for the chain stores. Older customers prefer haggling and large discount percentages while younger customers prefer to check the price beforehand online and expect that to be the final offer. These two extremities are hard to please at the same time so Lauta Oy has chosen to give up large discount policies and rather go with more see through pricing.
Initial plan is to execute all changes needed during spring and summer 2018. After the execution of needed changes management will make final decision on whether to certify new system or not. If everything goes as planned and certification criteria is being met estimated price range is from 3150-6000€. This is based on offers that were requested from four different companies offering certification services. These estimates do not cover extra costs occurring for example if auditor sees that some part of the requirements for the certificate are not being met. In general, all the offers were somewhat hard to compare to each other since all companies had different service packages for certification process and some parts that were included in one package could be invoiced separately in another. If something is not included but likely necessary unexpected fees might cumulate the price higher than expected. These companies offer also consultation to help with setting up QMS that does meet the requirements for ISO 9001:2015. Benefit of having certified QMS should be carefully evaluated before starting the actual process of getting certified. Internal audit has its limitations and getting outside point of view can be beneficial even without the certificate.

4.1 Documentation methods

Lauta Oy uses electronic documentation and paper is being used only when electronic documents cannot be used. For some reports paper is used at first and after that the information is further processed and filed electronically. To improve the system these extra steps should be avoided but so far there has not been better solution. Good example of this is planning mills reports of production. Filling in information on a paper so far has been the easiest way to get information of produced goods. Later information is gathered to an electronic file and further used to calculate production cost for particular item. Risk here is that the paper can get lost, person filling it in might have handwriting that is hard to interpret or some of the information is not filled in to the paper. Electronic filing is seen as beneficial and effective way to keep documents always updated and available. Files are easy to modify and to send if needed. For example, it is possible for a sales person or CEO to access and modify these files from home or anywhere. Furthermore, it is easy to control accessibility of these documents by granting rights for each folder only for people who need the information. Changes to these rights are easy to do. This way
risk of losing or leaking important information is not as high and if something happens it is easier to find out who did what.

There is ongoing project to get important public documents such as work instructions available in company wiki. Wiki is meant for company employees use only and each user can be granted right to modify or just read wiki. Idea of wiki is to allow all users to modify the content but for company use it is better to limit this feature from those who need wiki only to check instructions etc. Wiki will make finding the right information easier since search feature works better than the search that can be done for the current folders. For user the search is similar that can be done in Google for example. It will take a lot of time to have a complete set of instructions available in wiki. Once everything is set up also updating these instructions needs to be systematical. After these are available company will be less vulnerable in case something happens to a person who takes care of certain task or if that person just decides to switch to another company. Then knowhow does not completely leave with that person and someone else is able to take care of the that person’s job. Gathering instructions will take time and it is something to be done during following years.

Company has some written instructions mainly for financial administration. People who are working with administration are responsible for updating these instructions although some of them are not up to date. There are also processes that do not have written instructions and some processes which are not done consistently the same way by everyone.
There is a need for some instructions and written check-lists at least in warehouse. Planning mills processes are more practical and written instructions are not that useful. Improvement of instructions is something that needs improvement before applying the certificate. Instructions should be done using unified format and information should come from people involved with the tasks. As mentioned this is something to be done in following years to wiki.

When QMS related documents are created, such as work instruction, customers feedback, reclamations and audit documents just to name few, it is important to choose right location to store them. For Lauta Oy it is not an option to store all of them under Quality drive since it is more logical to spread them according the content to already existing file structure. Most of the drives have limited access and this needs to be taken into consideration. For example, work instructions should be available in a public folder but information about personal customer feedback should be available only for people who are working with that. This way the company will meet the requirements stated at clause 7 of ISO 9001:2015 about creating documents as well as how to store them.

4.2 Customer relations

In order to meet the ISO 9001 standards requirements customer feedback should be collected systematically and to be analyzed (SFS-EN ISO 9001:2015, 57). It is important to get the information not only about what could be improved but also what is being done well. Getting good feedback is always harder than getting the bad feedback. If the customer is satisfied or happy with their purchase they leave it there but when they are unsatisfied they will let everyone know. Feedback is not the same as reclamation although there is always at least bad feedback associated with reclamation. Reclamation happens only when there is seriously something wrong with the product and the customer feels they need compensation, their money back or replacement for defected product. By collecting feedback and improving processes based on it company can avoid some of the reclamations. One indicator that is easy to measure is the amount of reclamations and it can be used to follow in a long term how the quality is improving. This is something that will be started after summer when the high season is over and there is time to modify current reclamation and feedback process.
There is a form on company’s website for contact the company but as shown on picture 4 it says only that you can leave offer request or an order through the website. The form offers contact either over the phone or e-mail but the third option is that contact is not necessary. This is the way customers can leave feedback that does not require further response. Good thing is that this gives the customer an opportunity to give feedback quick, easy and even anonymously if name and contact details are filled out with made up information. Some of the feedback, especially good or neutral feedback, for the company is most likely never being sent because the form does not mention feedback. To improve this system, it is necessary to either have a separate form for feedback or to include word feedback to the first sentence. Collecting and processing feedback could be easier through one e-mail address and separate form. In this case, if feedback e-mail is prioritized to be less important, by mistake some orders might suffer delays. Furthermore, company is currently small and it is possible for the same person to do both tasks.

PICTURE 4. Screen capture from website of Lauta Oy (2017, modified)
4.3 Human Resources

Company is small and everyone knows each other by name. There are people that have been working for the company for a long time and some that have just joined the company. Most things related to human resources have been dealt with unofficially and most things are not documented. Since everyone see each other most everyday information sometimes is passed on over the coffee breaks. Problem with this is that it is not systematic and things that need to be confidential do not come up.

In the standard point of view first thing that was done is information bank of employees’ educations, skills and further training. This is also part of requirement for documented information. For now, simple excel, Appendix 1, sheet was done for this purpose. This sheet lists employees’ formal education, language skills, information about further trainings they have received and which kind of tasks they can do within the company. This document will be updated yearly during performance review. This document will play a role when trainings are planned for employees and as a tool to find the best person for each task. By documenting this information decision making is more fact based. This document should be further developed by standardizing and identifying the most valuable information about task skills of the staff. This will help the company to meet the requirement about evaluating and being competent mentioned in ISO 9001:2015 (SFS-EN ISO 9001:2015, 55).

Another thing that needs to be set up in order to improve HR is begin with regular performance reviews for all employees. This needs to be discussed with CEO and to be planned in a way that is beneficial for all parties. For this company, it could be the best not to make reviews too formal and just go over few open questions if there is not something especially important that needs to be discussed in private with certain employee.

4.4 Internal and external communication in the company

There needs to be a communication plan for the organization and this should be part of training for the employees. It would be helpful to make it clearer what to communicate, when, to who, how and who does the communication (SFS-EN ISO 9001:2015, 55). This
would help with meeting the standards requirements of inner and external communication.

Operations in Lauta Oy can be divided to three different sections (Figure 1) or departments based on type of work done in them: planning mill, warehouse or yard and store. Each of these can be further divided to different smaller responsibilities and tasks. All of these operations are important and closely related to one another. Currently communication between these units is based on meetings, e-mails, ERP and sometimes shared information on coffee breaks.

Related to standard there is a need to improve communication between these departments and between the management and employees. Better communication is expected to improve effectiveness within the company and to improve inner customer satisfaction. Effectiveness improves when information about what is going on what is about to happen and what the future should look like is available for everyone. For instance, planning mill should be able to tell others if everything is going as planned, if there are some complications and would they need extra help. Same goes for each function. Sales can predict the future the best based on the offers they have made and what customers are requesting. Sometimes surprises occur if information or part of it gets lost.

FIGURE 2. Organization structure and some of the core functions of each unit
Proposition is to start with regular staff meetings with everyone who can be present to participate. Plan is to start doing the meetings every two weeks and only use the time necessary. If there is something special coming up the meeting can take longer and vice versa. Because workplace is small everyone can in theory participate at the same time and benefit from the meeting to exception of one person staying for the cashier. After starting the meetings in February, it is possible to evaluate possible improvement suggestions.

Performance appraisals have not been done systematically in the past. In order to improve company, meet the expectations of the ISO 9001 and help employees to improve their performance appraisals need to be started in some shape or form. Most employees have asked for these kinds of discussions since they want to give and get feedback about their work. After questioning both the management and employees, it seems that the biggest worry is that these appraisals turn into forced and formal discussions with a document to fill and with no real effect on anything. To avoid that, performance appraisals should be designed to flexible and leave space for open commentary for everyone participating. Appendix 2 is a draft of performance appraisal form for later to be used. It should be stored to the CEO files where other people do not have access since these documents can include confidential information. To make appraisal effective only few most important things should be chosen as topics for appraisal. If there are several things that need to discuss it is better to schedule another meeting for later.

So far external communication has been clear since everything goes through CEO whether it is something for local media or advertisement. Also, company website is managed by CEO. There have not been any problems with employees posting inappropriate things to private social media channels either. However, use of social media should be one topic in the future to be discussed to prevent unnecessary bad publicity trough an employee. Another way that employees do external communication is every time they are in contact with customers or suppliers over phone, e-mail or face-to-face. However, this is something that might not come to mind when talking about external communication. It seems that everyone has basic skills to handle communication in a polite way based on that there are no complaints over the matter.
4.4.1 Improvements to communication within the company

As mentioned before most general information spreads around during coffee breaks or whenever people bump into each other during a workday. This has been working since the workplace is small. However, there is room for improvement since this method does not guarantee that everyone will receive all the information that might be important or useful for them. Also, sometimes part of the information gets lost or twisted in this process. E-mail or WhatsApp is not a solution since either of them will not reach everyone on daily basis. To improve the situation two message boards were installed and staff meetings every two weeks were started.

The first staff meeting was held on 29.1.2018 and it was started with a discussion of summer holidays and future meetings. In general, it seemed to be useful since the information was general and important for everyone. The next challenge is to keep up with the meetings, keep everyone attending and get people sharing information with each other in these meetings without making them last too long. Goal is that at least one person is attending from warehouse, store and planning mill. After summer the situation can be evaluated and see if the meetings have been useful or not and furthermore if the meetings should be arranged more often or less frequently. It is probable that if meetings are kept up for half a year to year the change is final and meetings will be seen as self-evident.

Two message boards were installed, one in the staff kitchen where everyone get their coffee, tea and cutlery daily and one in warehouse 5 to be used between warehouse staff. Message board in the kitchen is used for messages and reminders that are important for everyone for example a reminder of returning income-tax card. This has saved time and lessened the need for personal reminders. Information reaches now everyone more equally. So far it seems that the boards have been good inexpensive way to share information, investment was around 20 euros in total.
PICTURE 5. The message board in the staff kitchen (Photo: Laura Lähteenkorva 2018)

To improve accuracy of tasks to be done a checklist and an error log are to be created. Checklist can be printed out document that contains a list of things that need to be done in each week or month. This way everyone will see what has been done and what might need to be done. An error log could be part of wiki or existing filing system so that it can be updated and read by anyone from the staff anywhere. This should reduce repeated mistakes by providing data of the incidents where something went wrong.

When reporting an error, it should be done in a way that leads into root cause of the problem. There are several theories and systems how to get to the root cause of a problem. For instance, 5 whys of six sigma which is used as a basis for an error report document Appendix 3. Idea is to find enough reasons why something happened so that the root cause can be defined. Document can be filled out on a computer and send via e-mail or printed out and returned on a paper. This will create an error log that can be used for avoiding future problems. As it can be filled out both by pen or computer everyone can choose the most comfortable way to do that. All the information will be stored electronically in a file where it can further be sorted by when the problem or error occurred and a topic. This will help company to fulfill improvement requirements stated in clause 10 of ISO 9001:2015. It is helpful to know who filled in the report so that further questions can
be asked but it is more important that the report is being filled in the first place. That is why it is possible to leave anonymous reports.

Checklist in Appendix 4 was created with warehouse staff and the design so far is simple. Idea is that from that paper it is easy to see what has been done, is there something that needs to be done, who did it and when without logging into computer. One person is going to be responsible for checking that everything gets done but it is everyone’s responsibility do get the things done that are listed. Later more tasks can be added as well or left out. Checklist will be placed in the warehouse office in the whiteboard. Checklist is also one way to follow that everyone is participating and doing their job without using a lot of time for it or expecting co-workers to tell on each other.
5 RECAPITULATION AND FUTURE PLANS

ISO 9001:2015 is broad standard and covers how an organization, its suppliers and resellers handle their processes. Since it is flexible and requires only some documentation its implementation must be well thought through. Flexibility provides endless opportunities on how to show compliance for the standard. There is no ready model on how to meet requirements of the standard and that both makes the standard fit to distinct types of organizations as well as it makes it that much more important to put taught into implementation process. All the requirements that the standard imposes are quite simple and make common sense by nature. Most of them should be something to be considered self-evident however standard helps organizations not to miss anything.

During this thesis process some changes have been done and some are planned. Most of the quality control related processes are already up to standard and documentation is mostly sufficient in management point of view. All the changes have been quite simple but are expected to have a substantial impact on quality. Also, this is a starting point and idea is to keep the system evolving and improving. There is no need to make things too complicated since often simple solution is the one that works the best. For example, it seems that simple addition of two whiteboards have already made it easier to communicate things that are on nice to know basis. This has included reminders of staff meetings, changes of product placement or simple greetings like “good morning”.

The biggest obstacle to overcome is to better arrange external and internal communication. Internal communication needs to be good so that the company can have accurate external communication. For example, it gives a better impression for customers if anyone who answers the phone can tell basic information about the products and availability. In the audit point of view communication is now up to standard however since there is potential to do even better it makes sense to implement for example, new performance appraisal system. Also, ISO 9001:2015 standard’s Plan-Do-Check-Act cycle is something that should keep the system evolving and improving. Better communication should also help the company avoid unnecessary conflicts by resolving problems before the issue grows.
As mentioned, Lauta Oy is a small organization and that reflects to all processes. Area of responsibility for each employee covers wide range of tasks and everyone have more liberty to choose how each task is carried out than in bigger organizations. Process of signing responsibility over certain tasks has started before ISO 9001 project. This needs to be taken further and to better communicate that even if someone is ultimately responsible for a certain task it does not mean only that person in question can do it. This is going to be one of the topics for the performance appraisal see Appendix 2. When it comes to executing the same task in distinct ways it is sometimes a problem when it comes to office work. To later avoid this there needs to be written instructions where everything can be checked and training provided for those who work with office programs. These instructions are going to be in wiki, see picture 3, where it is easy to find.

There are some changes coming up for how the workflow is handled and the new warehouse is starting to operate during this year. These changes will have an impact on daily routines and therefore it would make sense to apply for ISO 9001 certificate after all these changes are in place if the management sees the need for the certificate. Workflow management changes will help the company to better meet the requirements for the standard. Idea is that everything is one place and in case someone cannot make it to work for whatever reason tasks to be done are being done by someone. Currently there is a risk that the task gets lost in someone’s desk. When it comes to the new warehouse it should make working more efficient in planning mill and in warehouses but how much so will be better seen after the first summer.

Whether or not getting QMS certified is a big question and certainly money is one factor that plays a role since it will cost several thousands to do the audit. Internal and external audit also takes time out of already busy workdays. At the moment certificate for ISO 9001:2015 seems unlikely to have an impact on current customers but it might help getting new customers especially from foreign markets where Lauta Oy is not known. Nonetheless it should be possible to get the certificate in relatively quick schedule if it is necessary in the future.

Process of implementing and going through ISO 9001:2015 and quality perspective seems to have been beneficial for Lauta Oy. Yet fact based results will be seen much later when new documents have fully been taken into use. For this project there were no strict instructions or limitations put in place by Lauta Oy. In return hopefully, this project has
been helpful and it will keep improving not only quality but also working environment for better. Some of the changes are still new and need an effort to keep going. For example, keeping up with staff meetings is important even when one person thinks there is nothing special to talk about. So far there has always been something to discuss.

FIGURE 3. Schedule for ISO 9001:2015 project 2018

There is a plan in place to continue ISO 9001 project in Lauta Oy that is done based on Plan-Do-Check-Act cycle of the standard. Plan phase has been done and next up is execution, evaluation and further action. During 2018 there are still some steps to be taken before ISO 9001:2015 certificate could be applied. As seen on figure 3 performance appraisals will begin, error log will be started and staff meetings will be kept up. These are the biggest imminent changes done to prepare Lauta Oy for ISO 9001. Summer is the time for holiday season which means that regular staff will be partly absent. Also, summer the busiest time of the year in consumer market. Therefore, only work instruction project will be started as a new thing. After summer it is time to check, manage and evaluate the results of new processes.

Work instruction process will begin during summer 2018 and it will be ongoing since updates are needed from time to time. Instructions should be updated every time some-
thing new comes up. Preferably people who work with the process or task that the instruction is about are involved with creating and updating these documents. If new programs or updates to old one’s are being done instructions for those are priority. After those comes processes and tasks that are on hands of one or two people.

Evaluation of what has been done will be done after summer. This will involve going through new documents that were introduced and possibly questionnaire or open discussion time for the staff. If something does not work, this is the time to either improve or give it up. Furthermore, if everything goes smoothly this is the time when internal audit can be executed and based on that stakeholder’s meeting can later make the decision whether getting certified is still something that the company would benefit from and on what schedule.
REFERENCES


Appendix 1. Employee skills information excel

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Appendix 2. Performance appraisal draft

Kerro omin sanoin työntekijäsi:

Mistä asioista olet vastuussa:

Oletko saanut riittävästi koulutusta tehtäviisi
Kyllä □ Ei □, jos ei missä tarvitsisit lisää
ohjeistusta:

Onko nykyinen tauojärjestely mielestäsi toimiva
Kyllä □ Ei □, jos ei miksi:

Työhön liittyen missä koet onnistuvasi hyvin, entä missä haluaisit kehittyä?

Sana on vapaa:
Virheraportti

Koska tapahtui (tapahtuma-aika/aikaväli):


Mitä tapahtui:


Miksi (nimeä 2-5 asiaa):


Mikä muu vaikutti tähän/vaikuttiko jokin ulkopuolinen asia:


Mitä pitäisi muuttaa jotta näin ei kävisi:


Ilmoittajan/ilmoittajat:_______________________________________________________
Appendix 4. Warehouse checklist

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| Tyhjennys tilattu             |     |     |     |     |     |
| kuittaus                     |     |     |     |     |     |