SAVONIA

Communication and documentation in regards to the ISO9001:2015

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Bachelor's Thesis

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SAVONIA UNIVERSITY OF APPLIED SCIENCES **THESIS**
Abstract

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Abstract

The customer for this thesis was Junttan Oy, a company manufacturing construction machines and operating on a global scale. The objective of this thesis was to improve the internal and external communication and help the company to achieve their goal to receive and maintain the ISO9001 certificate. This thesis is comparing the requirements given by the ISO with the current situation in the company. In addition to the theoretical background, new ideas and advises will be suggested in the thesis to improve the current situation.

This thesis consists of several chapters. The first two chapters serve as introductions as to why this subject has been chosen and what is the background of the chosen topic. The next chapters focus on the theoretical background concerning communication and documentation taking place in a company. The theory is being compared to the requirements that the ISO is placing on companies in order to receive their certificate.

Chapter 5 is dealing with a topic that is closely related to communication and documentation and that came across while doing research for this thesis, data management. It is an important tool to ensure that the documents of a company are organized in a reasonable way and that information can flow freely through a company to the points where it’s needed.

To learn more about the current situation a survey was created. The survey was based on quantitative as well as qualitative approaches. The reason for that was to maintain the ability to measure certain answers in numbers without losing the actual experience and feelings of the participants.

The number of survey participants was low but nonetheless the received answers hold great value for the thesis and offer a good insight into the minds of the participants. While some target groups, of the survey are very satisfied with the situation other target groups see a demand for improvement.

Keywords
communication, documentation, quality Management System, data management, ISO9001

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APPENDICES

1 Introduction

Communication is a crucial foundation for every society. Not only human society knows communication and language but also animals and even the smallest creatures are on this earth are communication in one way or the other. But despite that it can be said that the human species has probably developed the most successful and complex form of communication on this planet. With our complex language consisting of seemingly endless amounts of words we are able to express every feeling and situation we are experiencing. It is safe to say that our civilisation would not have grown to the current state without the language that we developed.

But not only the complexity of our language is what sets us apart from most of the animals, it is the ways in which we deliver our knowledge from one individual to another, from one generation to the next one. What started as simple drawings, of hunting expeditions, on cave walls has turned into a most efficient way to conserve knowledge. The documentation of knowledge lets us save and recall information whenever we see need for it. The digitalization has brought the form of communication even to the next level. Information, documents and knowledge can be shared with the whole world within a couple of seconds.

Those facts make it even sadder, that in many situations people refuse to use this powerful tool and create confusion and unnecessary complications. Especially in a company where every person and decision is in one way or another connected to each other, a faulty communication can be a reason for mistakes, failures and potentially a loss in the quality of the company. Communication is such an important part of a company’s structure, that even quality management systems have their own chapters giving guidelines to ensure a successful communication within a company.

The goal of this thesis is to analyse the common rules of communication and documentation and find a way to attach those rules to the requirements given by the ISO 9001:2015 standard. It is my goal to analyse the current communication system at Junttan Oy and give ideas and present the theoretical background to improve the existing system.

To achieve my objective I will create a survey that will measure the satisfaction of customers and workers of Junttan Oy concerning the current communication effort and system.

2 Quality Management Systems

A quality management system describes all necessary processes that occur in a company to meet the quality requirements. Management systems will help companies to develop the mentioned processes and create an efficient and reproductive company.

The quality policies and the quality goals of a company are decided and documented by the management. The quality goals have to be measureable so that improvements can be measured right away and the efficiency of the system be proven. (ISO 2016.)

Quality management systems follow different principles, often also called beliefs. There are seven of those principles that should be followed. The importance of each principle has to be decided by each company. The principles are:

- Customer focus
- Leadership
- Engagement of people
- Process approach
- Improvement
- Evidence-based decision making
- Relationship management

It is natural, that the priorities might shift over time and other principles become more important than before and vice versa. (ISO 2012, 3.)

Since a quality management system should focus on every aspect of a company, all workers and suppliers have to be included and must follow the guidelines of the quality management system. One goal of quality management systems is the continuous improvement. Therefore frequent measurements of the goals are necessary.

A successfully established quality management system is offering companies a good starting point to develop further management systems focusing on topics such as environmental protection or worker’s safety and health.

This opportunity can be very interesting for Junttan Oy. Once their quality management system is successfully established they can focus on additional goals. Since the environmental issues are getting more important nowadays, it might be a good idea to consider steps in that direction. (Dettmer 2011, 45; 53-55.)

2.1 What is the ISO?

The ISO, or International Organization for Standardization, is an organization that operates in 163 countries. It is not government owned and operates completely independent. The ISO is developing international standards to ensure that international processes and parts are fitting and therefore lower the difficulties when importing and exporting goods between countries.

The standards developed are therefore aiming to cover the needs discovered by the market. Needs are deriving from industrial sectors that contact the ISO and announce the need for a new standard. A team of experts is then working in cooperation with international stakeholders to find a consensual solution and satisfy the needs of the industry.

So far the ISO has published over 21 610 international standards. Those standards contain specifications, requirements and guidelines that can be used by companies to ensure that every process and goods produced by the company will meet their need. The standards created by the ISO covers a wide range of topics from process and material requirements up to the whole management of companies. (ISO 2016.)

The ISO itself does not organize audits for companies and award them with certificates. It is merely the developer of standards and hands out licences to companies who are then allowed to give certificates to companies which are operating within the regulations of the ISO standards. (ISO 2016.)

2.2 Standard ISO9001:2015

One of those mentioned standards, for which companies can receive a certificate, is the ISO9001. It is a part of the ISO9000 family and sets guidelines for an international quality management system. The goal of the ISO9001 is to ensure a company’s ability to produce a high quality product that will meet customer’s needs and expectations. Furthermore the overall customer satisfaction is the highest goal of the standard. In connection to that goal the plan is to lower the risks by creating an efficient and well organized structure within the company. (SFS9001:2015, 5-6.)

Also the ISO9001 is following the idea of the quality management principles mentioned earlier in this thesis. The standard is continuously improved and after several years an updated version of the standard will be published. The latest update was published in 2015. Just like the standard itself the quality and processes of a company should be under permanent improvement.

The ISO has developed a system of regular and irregular audits to ensure that companies will keep up, or even better, improve the quality and efficiency they had when the certificate was given. Those audits will be held by a certified company who will come and revisit the progress that has been made in the last several months. In addition to the external audits, the ISO also requires that internal audits will be held regularly. The internal audits should give indication if the quality management system is still meeting the own requirements of the company. (SFS 9001:2015, 27-28.)

Nowadays the ISO9001 is a very important certificate for companies to have. Many customers in high standard countries like Germany and the USA even demand an ISO9001 certificate otherwise the further cooperation will most likely be cancelled.

Those mentioned facts and benefits are and additional reason why Junttan Oy is taking on the process to achieve the quality certificate of ISO9001:2015. Receiving that quality title will create possibilities to expand, offer new market possibilities and create a competitive advantage for Junttan Oy.

3 Communication

3.1 Communication in general

Communication is the exchange of information by using a common medium that all parties are able to understand. This exchange can take place on different level. Information can be exchanged by using different media like language as spoken or written words, body language and facial expressions. But also the tone of the voice is a big indicator and can create subliminal messages. (Trenholm & Jensen 2008, 27-28.)

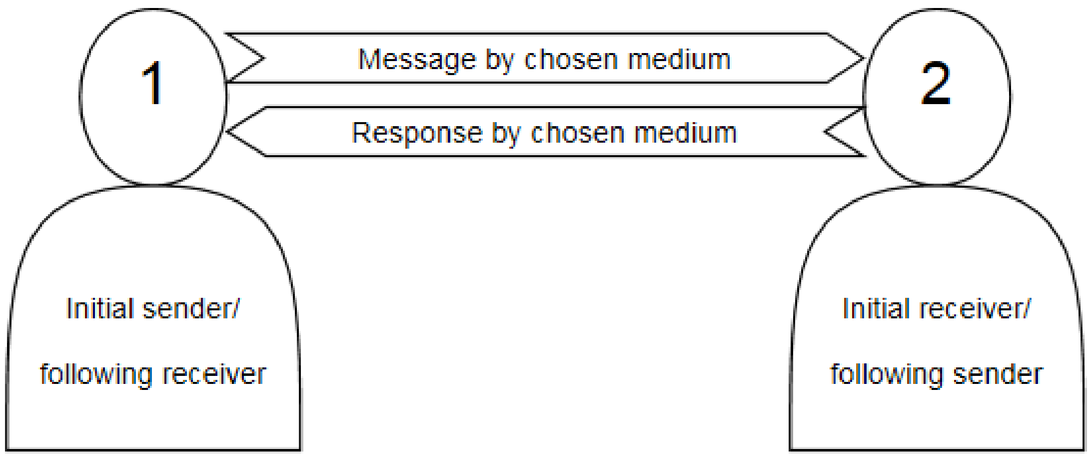

Figure 1. Communication model (based on Flatley, Rentz, Lentz 2012, 14.)

A normal conversation consists of 2 or more participants. There are senders and receivers. As shown in Figure 1, Participant 1 initially delivers a message, which contains some sort of information, by choosing one of the earlier mentioned media. This will make Participant 1 the *initial sender.* To initiate a successful conversation it is important that Participant 1 is choosing a medium that can be understand by participant 2, to avoid misunderstandings.

In this case Participant 2 is therefore the *initial receiver*. After the message is successfully delivered to Participant 2, he has to process the information contained in the message and decide whether to send a response or not. Assuming that a response is needed, Participant 2 would have to go through the same steps of choosing a medium and delivering the information, which would turn his position in this conversation from a receiver into a sender. (Flatley et al. 2012, 14.)

Communication appears in different forms, it can take place as an interpersonal communication between two individuals, or as a group conversation. There are various objectives for an interpersonal communication. During a normal work day or when working on projects, interpersonal communication is usually following the goal to exchange information and help solving a certain problem or task that appears during the work. Another goal can be that the two individuals want to communicate on a social level to maintain a good relationship and a good atmosphere. A good relationship and common thoughts between individuals often increase the efficiency of a work group. (Trenholm & Jensen 2008, 26.)

A group conversation is a situation in which more than two individuals are taking part in the conversation and the focus of each individual has to be separate among several communication partners at the same time. Although a group conversation can bring up many ideas due to the higher amount of participants, it can also be very ineffective because the more opinions are existing the more opinions can oppose each other. (Trenholm & Jensen 2008, 26-27.)

3.2 Requirements of ISO9001:2015 Clause 7.4

The requirements regarding the communication of a company are covered in clause in 7.4 of the standard ISO9001:2015. Although the requirements given by the ISO are rather small and not very strict it still is a topic that should not be underestimated in supporting the quality and performance of a company.

The standard requires Junttan Oy to set rules for internal as well as external communication. The main points to be considered are (SFS-EN ISO-9001:2015, 19.):
a) on what it will communicate
b) when to communicate
c) with whom to communicate
d) how to communicate
e) who communicates.

3.3 Business communication

Business communication inside a company is often following the same needs than any other communication. Information and details are being exchanged and workers create an understanding of each other’s positions and possibilities. To ensure a good

communication it is vital to make a plan of what information needs to be sent, to whom it should be sent and what medium shall be used. A complicated aspect in business communication is the mix of personal communication and relationships and professional relationships. Every communication takes place on those two levels. Therefore it is important to remember also the human relationships when doing business.
(Flatley et al. 2012, 19-20.)

3.3.1 Internal communication

Internal communication includes all work or business related conversation that is occurring while implementing and following the company's objectives. The communication inside a company takes place between individuals as well as groups throughout every department and position of the company. Managers communicate with workers, supervisors with subordinates or just colleagues with each other.

Those conversations are happening in different ways. They can be oral communication or written communication via email or instant-messaging. Apart from those communication channels, also the documentation such as paperwork and forms are a form of communication in the daily life.

In an attempt to describe the essence of a company, James Taylor (1993) described an organization as a text that is produced by a set of authors (the employees) through conversation. To read and understand the text is a difficult task for new employees and even more for customers or other outsiders.

New employees need the learn how to read between the lines of the organizational text. Apart from the workers (co-authors) there are several other influences existing. Those influences are (Trenholm & Jensen 2008, 344-345 and Taylor 1993, 96.):

1. the organizational culture
2. the various teams that plan, produce, promote the products
3. how to deal with status and supervision
4. how to relate to customers and serve them properly
5. how to draw a line between the personal and professional life of workers

Theories are stating that any kind of company is actually forming an economic and social system. Charles Conrad even goes as far as saying that each company has own small culture, shared beliefs and goals which are lived out by forming symbolic things like stories, myth and rituals. For outsiders or new employees this culture is often explained with the phrase “the way we do things around here”. (Trenholm & Jensen 2008, 345 and Conrad 1990, 6.)

Trenholm and Jensen (2008, 345) say, that to Weick (1979) the employees of a company build daily a construct that can be compared to a spider web. Employees spin various connections of power and rewards as they on a daily basis. At the end of a workday the next is falling apart and will be rebuild on the next day. However the connections and interactions change therefore the web will always experience a subtle change and evolve.

Many companies have mission statements. Mostly those goals are created by the management in regards to a quality management system. However, very few companies discovered how to properly translate those mission goals into everyday action by employees. Part of the problem is that most mission goals are decided just by superiors without encouraging the employees to take part in the decision making or at least decision developing process. By encouraging employees to be actively involved and give them the chance to suggest improvements it is ensured that the management can profit from the expertise and knowledge of their workers. The expertise of the employees is not only limited to the profession but also the inside knowledge of the company and the workers possible relationships to customers. (Trenholm & Jensen 2008, 346-347 and Somerville & Mroz 1997.)

To implement a successful relationship and communication between the management and the workers both parties must accept and live up to their responsibilities. Each worker has to stand behind the product and support the company’s goals and missions. Apart from supporting the company’s actions and products, another very crucial part for each worker is to understand their own position and responsibility within the organization. There is a big need to understand that the company is a complex combination of processes. Every decision made in one department will have direct influence on other departments, too.

The design department for example must not only think about the design department but also what kind of effect the decision will have to other departments of the company. Will the revision of a part be compatible with the old parts? How will it affect the production? Is the service department informed about new parts and will they have the part in stock?

In the case of Junttan Oy, it could bring advantages to organize some kind of workshops or meeting between the departments, where they learn and get reminded about processes in other departments and what effect their own decisions have on those. It might be possible that some workers try to refuse the idea or look for reasons to skip the process but the participation should be mandatory. (Trenholm & Jensen 2008, 346-347.)

3.3.2 Formal and informal ways of communication

As far as the communication inside a company is concerned, there are two possible ways information can spread inside a company. Information can either travel through the formal ways of the company or through the informal system to reach all workers.

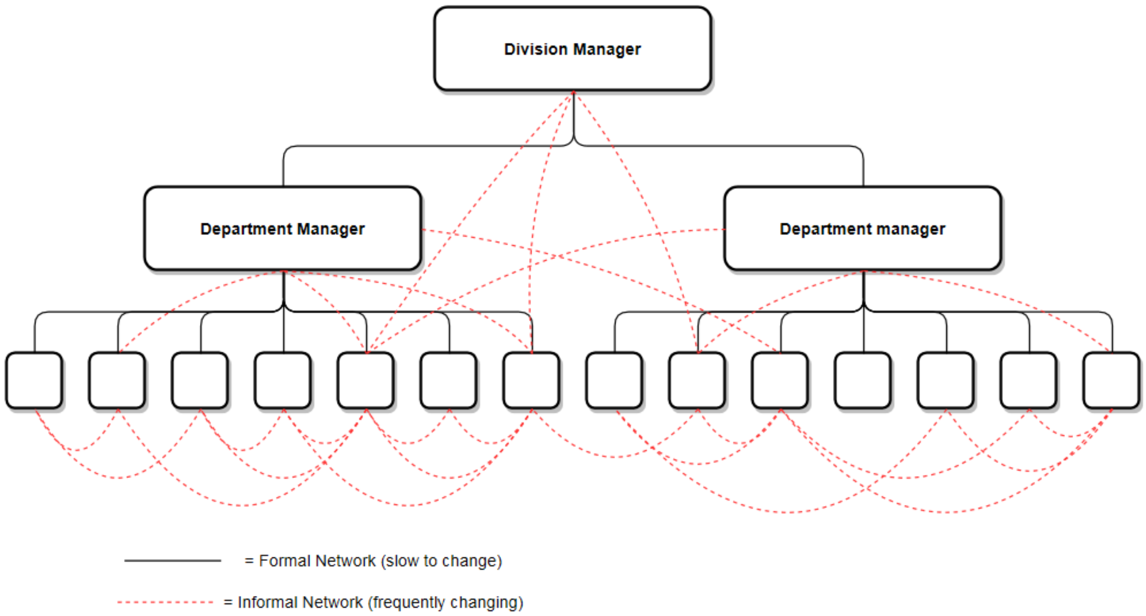

Figure 2. Formal and informal communication structures (Flatley et al. 2012, 11.)

The formal communication network should be the main line of operational communication within a company. As shown in Figure 2 the information in the formal network should flow in every direction. News and decisions should flow evenly from the top to the lower levels. The division manager will forward the information to the department managers, who will then spread the information to each worker. The workers can process the information and if necessary forward it to external parties like customers or suppliers.

Information that the workers have or receive from external parties will flow in the opposite direction. The worker has to decide if it is necessary to pass the information upwards to the department manager. The department manager will then process the information and forward it either upwards to the division manager and/or other depart managers.

This flow of information is important if internal or external issues with the products occur. If a mistake is noticed the information must be passed on. The mistake must be analysed and forwarded to the responsible department to avoid the same mistake in the future. (Flatley et al. 2012, 11.)

The grapevine theory is an informal communication theory. According to the theory a grapevine network is existing in every company. By informal network is meant, that the information is not spread through the formal channels but through conversation between workers during breaks, small chats at the coffee machine or private conversations outside of the working time. Also the information that people gather by just overhearing someone else’s conversation is included to the grapevine communication. Although in this theory also many rumours and gossip are passed between colleagues the amount of valuable and official information that is traded should not be underestimated. Often more important and a higher amount of information is spread through the grapevine system. (Trenholm & Jensen 2008, 350.)

Superiors can use those informal connections to spread their information by involving the correct person, the so called *team leader*. To identify a team leader the superior has to analyse what persons are on good terms with their co-workers and who is actively sharing information within the company. When a team leader is identified the superior has to also consider his/her possible opinion about it. The information spread through the grapevine will always receive personal notes from one person to the other. If the team leader has already a negative opinion about the information it will be most likely that the information will not be forwarded purely objective. (Trenholm & Jensen 2008, 350 and Davis K. 1972, 280.)

As described earlier the informal network can spread some information much faster than the formal network. However, the formal communication network should remain the main source of information for the employees.

In Junttan Oy’s case the information flowing through the formal channels should not fall too much behind the informal network. If that happens, employees might get the feeling that the official communication system is faulty and not frequent enough.

3.3.3 Generating norms in a group/team

Within any organization different groups and teams will form. They will form either connected by the task and position inside the company or naturally by common ideals and interests. It is important for those teams to generate norms which are accepted by every member. Teams formed by shared interests and ideals are forming norms more naturally and easy. For groups “forced” to work together, may it be because of a project or personnel rotations in the company, it is more difficult to find common norms. The only way to successfully achieve common rules is a good communication. (Trenholm & Jensen 2008, 353-354.)

Naturally formed groups can be very effective since the common norm has been given from the very start and therefore the process of developing such standards can be skipped. Those groups however are often exposed to the risk of too close bonds and an effect called groupthink. In the naturally formed groups the workers are often not as critical towards their team members as in the forced work groups. The members start to hold back criteria in order to maintain the good relationship. Mistakes often can be overseen and the group members are reinforcing each other in wrong opinions which can lead to that the group sees its own decisions as correct and impeccable. In forced groups on the other side the members watch each other’s task much more carefully and are earlier ready to give feedback and suggest alternative solutions. (Trenholm & Jensen 2008, 353-354.)

According to Trenholm and Jensen (2008, 353), the most successful groups in a company create a good communication system in which the members inform each other about the norms they are following personally. Another important factor inside those groups is the support and confirmation of a well done job between the colleagues. Individual workers tend to work more effectively and with a higher satisfaction rate when they experience a good feedback for their performance.

Usually each team or group within a company has an unannounced “opinion leader”. If the manager or superior of a company wishes to change the norm within a certain group, the easiest way is to spot the opinion leader and use him to spread the new standards in the group. One individual can be part of different teams inside a company. It can be part of several natural groups as well as forced groups. Furthermore it should be considered that a worker can have different roles within the separated groups. While the individual might be the “opinion leader” in one team, it is very much possible that he is a quiet member in another group taking not any special position for himself. (Trenholm & Jensen 2008, 352-353.)

It is the superior’s task to create a unity of the workers and offer them an environment that will help them achieve the goals set by the management. (ISO 2012, 6-7.)

3.3.4 Communication: Supervisor-Subordinate; Subordinate-Supervisor

This chapter is covering the communication between supervisors and subordinates and vice versa.

The communication between supervisors and subordinates follows different rules than the communication between two equal colleagues. That difference in communication is created by the unequal status and authority between the superior and his subordinates. (Trenholm & Jensen 2008, 354.)

It seems that, because of the higher position, the supervisor is the one in the position to create the frame for the conversation. He has the power to start and stop discussions with his subordinates and lead the way and topic of a conversation. Furthermore supervisors have more right to change the tone of on conversation between formal and informal. This is not only giving more rights but also more responsibilities to the superior. It becomes mainly his task to become a good example and encourage and inspire the subordinates for their ideas. (ISO 2012, 6-7.)

In addition to the earlier mentioned points the subordinate also has reasons to consider what kind of information he forwards to his superior. Some information given to a superior can change the whole dynamic of a team by either changing the trust and relationship between the workers or between the superior and certain subordinates. Even information exchanged during a conversation that seemed to take place on a private level can change the climate in a company. The person who has the best possibility to create a functioning communication and relationship between superiors and subordinates is the supervisor. That goal can be achieved by trying to create a relationship that is avoiding the negative side effects of the difference in position. But also the subordinate has several ways to influence the relationship. He should remember the status difference and act with respect towards it without giving up on his own dignity. (Trenholm & Jensen 2008, 354 and Goldhaber 1983, 226.)

Trenholm and Jensen (2008, 354-355) write that according to Jablin (1979, 1208) it is easier for employees to open up and create a good communication with a superior which is not too involved into the company’s political life. The most likely reason for that behaviour is that subordinates prefer a superior which is loyal to his position and subordinates and works not only to climb up the company ladder.

There are several leadership styles. A still much used list of leadership personalities has been created by Charles Redding. According to Redding (1972) a good superior should:

- be more “communication-minded” – they enjoy talking with subordinates
- be willing to listen and take appropriate action in response to employees suggestions and complaints
- tend to “ask” or “persuade” employees more frequently than “tell” or “demand”
- be sensitive to subordinates’ feelings and ego defence needs, careful to reprimand in private, and so on
- be more open in passing information along to subordinates, giving advance notice of changes and explaining rationales behind policies and regulations.

It should be remembered that simple lists like above do not cover every situation and every company. Even with all mentioned characteristics a superior can fail to lead a group if the type of organisation or group is not fitting for the communication style of the superior. (Trenholm & Jensen 2008, 354 and Redding 1972, 443.)

Junttan Oy has reached a very good level of the communication between superiors and subordinates. The communication is open but both parties respect the knowledge and position of each other.

3.4 External communication

As the name states, external communication is happening between an individual or a team of a company and one or more external parties which are no part of the company. Examples for external parties could be customers, suppliers or service companies.

A company’s success is highly depending on the relationships it is maintaining with external parties. Good relationships can grand a company many benefits such as faster or more flexible delivery times or a greater understanding for own shortcomings. (ISO 2012, 16-17.)

The way of external communication is similar to the internal communication. Different media like oral or written communication are used most commonly. Since the physical closeness between a company and external parties is often not given, the written communication takes a much more important place in external communication. External communication can be done in two different ways, either by direct or indirect communication. Direct communication includes oral communication, email or instant messaging directed at a certain team or individual. This form of communication is used to solve existing problems or tasks and exchange information.

Another possibility is the passive communication. That form of communication is using different media such as brochures, social media, magazines, email newsletter or exhibitions. Unlike in direct communication the exchanged information in passive communication is not only directed at one certain external party but to all who are interested. The term *passive communication* is coming from the point that the possibility of direct responses from the external parties is often not given and the communication therefore only happens in one way.

3.4.1 Communication with customers

While the internal communication of a company is important to create a good atmosphere and efficient work, also the external communication, for example with customers, is obviously important to the success of an organization. Since the success of a company is depending on its ability to satisfy the customer's needs it is vital to create good communication to understand each other's needs and possibilities.

In an international operating company like Junttan Oy it is important that the workers have knowledge about manners and traditions in other cultures. The current and future needs of customers have to be understood to retain the trust of the customer to fulfil those. All interactions or communication with customers are offering the company possibilities to understand the needs better.

Junttan Oy could regularly collect and measure the feedback from their customers to ensure that the satisfaction rate is remaining good or even improves. To maintain a good customer satisfaction, the relationships between customers and their contact persons should go beyond formal contacts. Social activity and communication can be a key factor. It is very normal to grand higher benefits to people who you know and like than to stranger people. (Trenholm & Jensen 2008, 355.)

3.4.2 Communication with other external companies

Other areas of external communication are the communication with other organizations such as service or production companies. Suppliers are a vital part of any organization, therefore a good communication system with them cannot be left out. Information about schedules, demand and possibilities has to be exchanged frequently to ensure that the production in both companies can run as smoothly as possible.

To ensure that the company is operating within the legal boundaries, the communication with legal counsellors and government agencies is also part of the external communication. The legal counsellor also supports the communication between an organization and its external parties like suppliers and customers. (Flatley et al. 2012, 8-10.)

3.5 Communication medium

3.5.1 Oral communication

Oral communication is a flexible and interactive way to communicate with each other. When the solution for a problem has not been figured out yet, oral communication is the easiest way to achieve the goal. Apart from spoken words the communication members can also use their gestures and tone of voice to send information. Furthermore, oral communication is more interactive since each member can react and rethink in a fast way to new facts. This way the communication can proceed in a much faster and smoother way. (Flatley et al. 2012, 16.)

If the distance between two parties is too long, either a phone call or a video conference can be used to gain all the advantage of oral conversation. Many people have to get used to this way of communication before they feel totally comfortable. Since spoken words cannot be repeated for sure and only remain in our memory it is recommended to keep notes during a discussion. This way all important facts are saved and will not be forgotten. (Flatley et al. 2012, 16.)

3.5.2 Written communication

In the digital age written messages are on the rise. Either via email, chat or short message systems every person is almost 24/7 reachable. The information exchanged with those media can have big variations. The most effective way to use written communication is to exchange simple messages and facts or notes. Written communication should not be used to discuss important matters since important issues like the tone of voice cannot be transmitted. A good use for written communication is to exchange fast and simple information. While human contact and face-to-face communication should not be replaced, it is inefficient to walk around the company just to pass on a simple message. (Flatley et al. 2012, 16.)

3.5.3 Other communication

While the oral and written communication are in a business the most common communication channels, other media should not be neglected. Information can be efficiently spread through newsletters, social media updates to external parties.

The main difference to written and oral communication is that newsletter and updates are usually one-way communications. It delivers information to the external parties but does not offer a direct way for responses. (Flatley et al. 2012, 16.)

An effective way to communicate and at the same time gather valuable data are questionnaires. People will receive the image that Junttan Oy is caring about their opinion and that they are given the change to have an impact. Since the number of the responses among Junttan Oy's employees is usually not very high, it would be reasonable to spread survey papers during or after the earlier mentioned department meetings. Filling the questionnaire is mandatory before leaving the conference room. This way employees are not able to forget or just ignore the survey.

Since it is, for a company like Junttan Oy highly unlikely to get all their customers into one room and make them fill a mandatory questionnaire, other approaches have to be found. Webropol for example offers the chance of personal access-links to the survey page. This way it can be monitored which one of the customers has participated. Reminding emails or calls to those who have not given a response can be sent to achieve a higher number of participants.

3.6 Process of delivering a message

To successfully deliver a message and make sure that its content is clear and easy understandable, Flatley, Rentz and Lentz (2012, 14-15.) have developed several steps that need to be considered.

The success of a message is depending on the sender as well as the receiver. Each party must do their best to ensure that a message is as successful as possible. The sender must ensure that the message is delivered and formulated clearly and the receiver must ensure to react to the message and give feedback. (Huhta 2007, 22.)

Although communication reasons and content is changing, the following steps are usable for almost every communication situation. The following text contains the steps the sender should consider when implementing a message.

1) Sensing a communication need: In this step the sender is most likely confronted with a problem or issue, either with one that he has noticed himself, or someone took contact to him and required his help
2) Defining the situation: In step 2 the given problem is being analysed. Is further information from other people needed to solve this problem or can it be figured out addition help? Has there been a similar situation/problem before?
3) Considering possible communication strategies: After the analysis has started and the problem begins to be clearer, it is necessary to find possible options for solving the problem. An important question is what kind of communication event shall be used and what the goal of that event is. What image should be forwarded to the communication partner? The background of the communication partner should be considered as well as one's own background and their relationship to each other.
4) Selecting a course of action: After analysing the given options it is important to choose the way the communication should proceed from here. To find the optimum solution issues like communication channel, form of communication (formal or informal) and content must be considered.
5) Composing the message: This step is depending on the chosen form or channel of delivery. If the message should be delivered orally a presentation with the support of visuals could be done. If delivered written, it can either happen on a form paper or via email.
6) Sending the message: To create a successful message it is also important to choose a good timing. A negative example would be Friday afternoon. Most people already focus on the coming weekend. The chance that they are not any more in the mood to take on a problem, and finding solution might take a longer time, is much higher than if the message is sent on Tuesday mornings.

   Obviously in very urgent matters the time of delivering a message is not as important. It should be sent forward as fast as possible to ensure that the solution is initiated as quickly as possible.

At this point the sender has done his best possible to ensure that a message is successfully delivered. The rest is up to the receiver of the message and the way he proceeds. The following steps are a guideline from Flatley, Rentz and Lentz (2012) to ensure that also the receiver takes his part in creating a successful conversation.

1) Receiving the message: The message sent by another person arrives at all chosen participants of the conversation.
2) Interpreting the message: The sender has done its best to create a clear message. Now it is up to the receiver to interpret the delivered message and extract all necessary information from it. Often the receiver extracts more information than just the content from a message. Depending on the style and channel of the message the receiver makes a judgement about the sender and the organization he represents. If the sender has considered the receivers background correctly, chances are rather high that the message will be interpreted correctly.
3) Deciding on a response: Whether the receiver creates the desired response is depending on how carefully the message has been adapted to the receiver.
4) Replying to the message: For the case that the receiver decides to take action and respond to the message, his position in the communication will change. He will turn from to receiver into a sender. When replying to a message he will go through the same 6 steps as the sender did before.

As can be seen from the required steps in communication the roles of sender and receiver are often changing. Usually no party is strictly receiver nor sender. (Flatley et al. 2012, 16-17.)

A struggle while delivering a message can be to find the correct words to use. According to Chris Garrett the person who writes a message should first be sure to know the main point of his message. After figuring out the main point he should start from the middle of the message and work his way from there to the beginning and end of the message. If the writer is stuck and cannot proceed with the message Garrett advises to take a break for some time and first work on another task. After returning to delivering the message, it might help to speak the out the main point loudly or explain it to a friend. Often it is helpful to explain the problem to a third party in order to find the correct words. (Flatley et al. 2012, 25 and Chris Garrett 2007.)

3.6.1 Content order in a message

Email: In an email the content should be ordered in a top-down order. That means the most important points should be mentioned first to ensure that the most important point of the message can be seen right away. The other content should be ordered in the same manner.

Positive matters should be written in a direct manner while negative issues should be formed in an indirect matter followed by an explanation and reason.

Although emails are an easy way to communicate it should not be used in certain situations. Examples for when not to use an email as a medium would be (Flatley et al. 2012, 31-34.):

- for a long and complicated message that requires negotiations
- information that needs discussion and clarification
- confidential or sensitive issues
- emotionally charged messages that require body language and undertone to soften the used words
- to avoid direct contact with a person especially when delivering a negative message. Negative messages and conflicts should be solved face-to-face.

4 Documentation

4.1 Documentation in general

As mentioned earlier in this thesis, documentation is a major way of communication. Documentation is offering a way in which information can be forwarded and stored safely. In the best cases the information is saved in locations where the employees which need it, can access the information at any time without problem. The purpose of documentation is to preserve and transfer information or knowledge from one party to another. (Harrington & Esseling 1997, 14-18.)

To put it simply: The point of documentation in a company is not, that workers have to know every information and aspect of the company, but they always know where to find them. To achieve that goal a well-organized documentation is crucial.

The most common problems, in this process, are to ensure that the knowledge and information is transparent and available for the right people at the right time. People must be able to have access to the necessary information, either by finding the information from a database or asking a co-worker. (North, Brandner & Steiniger 2016, 27-28.)

Same than with the communication, there exists internal as well as external documentation. Internal documentation is purely used within the company while external documentation is also concerning external parties. Those parties can either provide documentation to the company or receive them.

Usually external documentation is necessary for planning & operating a Quality Management System. External documents include certificates, requirements, laws & regulations. Documents such as certificates can be used as proof of conformity. Therefore it is necessary to protect those external documents from alterations or destruction.

The content of internal documentation can be wide. It can include process information which can be so detailed that it explains even the smallest task a worker is performing in a process.

To successfully document the knowledge and experience of the workers it has to be separated in two kinds of knowledge, tacit knowledge and explicit knowledge. Tacit knowledge is the personal knowledge and information that workers possess. It is mostly an intuitional knowledge that is based on previous experiences and can hardly ever be put into documents. The best way to transfer tacit knowledge from one person to another is by using personal oral communication.

Explicit knowledge on the other hand is more of a methodical knowledge. It can easily be saved and transferred through media and documentation. Explicit knowledge includes for example processes and their details and also certificates and patents. (North et al. 2016, 6-7.)

The earlier mentioned database is one of the next problems. To enable a good flow of information a “market place of information” has to be created. This place has to be structured, easy accessible and contain information about processes, guide lines, customer knowledge earlier projects and experiences. Every worker has the responsibility to share his knowledge with the company. The reason behind the database is not to make employees with knowledge substitutable but to minimize the risk of the company to lose valuable information. To motivate the employees to share their valuable knowledge, superiors can use different methods. They should be a good example of sharing information. (North et al. 2016, 1-3.)

Knowledge or information can be categorized in different ways. One way is to separate knowledge/information into 3 categories (North et al. 2016, 28-29.):

1) General knowledge/information and rules of behaviour, quality standards and safety
2) Specific information about working groups, project management, requirements and leadership
3) information for individual tasks, specific technical and organizational knowledge such as process descriptions and handbooks

Some information have a demand for pull, other documents have to be pushed to the workers. It should be the company’s goal to reach a balance between push and pull. Necessary information should be directly delivered to the workers (push). Also workers should be motivated enough to look for further information in their own interest (pull). In general categories 1 and 2 of knowledge should be provided with the push principle to the workers but can be additionally also available as pull. Knowledge belonging to category 3 is usually provided as pull documents. (North et al. 2016, 28-29.)

4.2 Requirements of ISO9001:2015 Clause 7.5

There are several needed or at least recommended documents in order to achieve the ISO9001:2015. Examples for those documents are operational quality-management documents such as process descriptions, work & method instructions and job descriptions. Internal specialized-technical documents (own production & maintenance instructions such as drawings, diagrams, laws and rules) and external documents such as customer requirements, manuals, service manuals, drawings, laws and standards. (SFS 9001:2015, 19-20.)

Although written documents like the quality handbook are not mandatory anymore the company must be able to prove to the auditor that all workers are able to fulfil their task and have all relevant knowledge or at least access to it. The following documents are not mandatory, but advised, to have:

- Quality politics/goals
- Organisational chart -> who is responsible for what (see Figure 3 as an example)
- Organisation profile to give a quick overview for external or new workers.

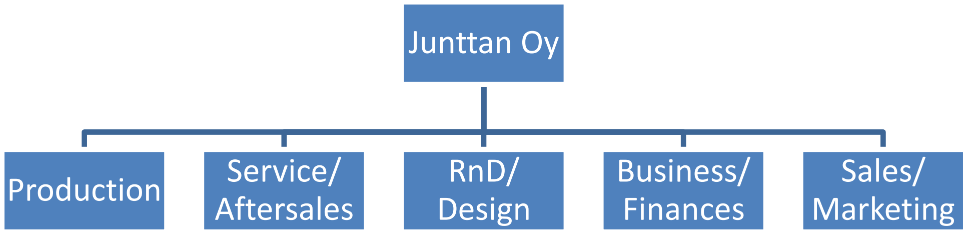

Figure 3. Junttan Oy’s company structure

In every company are several kind of processes taking place. Generally those processes can be divided in three major groups: core processes, support processes and strategic processes. Determining the processes will help to get a better overview and later on gives the possibility for creating a better organization of the documentation.

Core processes: The indicator for those processes are coming from an external source. Examples are orders from customers that then initiate the process in the company. A high amount of core processes is what the company wants.

Support processes: Unlike in core processes, the initiator for support processes is coming from inside the company. Examples for support processes are the need for new workers or the purchase of equipment/furniture/material to improve the performance or moral of the workers.

Internal processes: Those processes determine the future goals of the company, employment development and other organizational plans. (Steinbrecher & Müll-Schnurr 2014, 62.)

All processes of a company should be documented. There are various ways on how to document a process. A detailed but easy to understand document, are process flow charts. Since the workers and their direct superiors know the processes in the company best it would be advised to work with them together and let them create the flow chart. Not only processes in the office work, like the sales processes, but also assembly and production processes should be documented. (Steinbrecher & Müll-Schnurr 2014, 62.)

4.2.1 Documents of proof

Documents of proof are a special kind of documents. They do not contain information about what or how something has to done, but they prove if something has been done. It can also provide information on the current state of products. A checklist for calibration of the machines would be one example for a document of proof. (Hinsch 2014, 65.)

4.2.2 Creating and updating documents

There are several requirements that are given to revision documents that have to be fulfilled. All documents must be structured and marked in a certain way that the purpose of the document is recognizable at first sight. Important data on those documents includes: purpose of the document, revision, reason for the document, creation date, and possible expiration date. Also the source of the document, meaning the worker filling out the document, and the person who approved the document are required on the document. The form of the document is not crucial as long as it is ensure that the documents are available when needed for a long period of time. (SFS 9001:2015, 19-20.)

Only approved documents are allowed to be published within the company to avoid confusion. For this reason also copies of documents are dangerous because it cannot be assured, that also the copy will be updated when the original document is being revised. The person approving a revised or new document must ensure that the new document is not crossing with existing documents and that the content of the new document is feasible. (Hinsch 2014, 65-66.)

4.2.3 Creating and updating information

New or revised documents must be announced and published. In those cases the documents must be brought to the workers by using the “push-process” mentioned earlier in this thesis. The protection of documents must have a high priority in the company. Meant by that is the protection from misuse, theft, falsification and wilful destruction/deletion of sensitive and unique documents. Back-ups for the most crucial documents are strongly advised. (Hinsch 2014, 66-69.)

4.3 Loop of information

The following chapter is based on the theory developed by North, Brandner and Steiniger (2016, 11.).

The loop of information (see Figure 4) is a tool, which can be used in companies to create an effective documentation base. The loop helps to determine what steps to follow when creating knowledge and documentation and how to keeping the gathered information up-to-date.

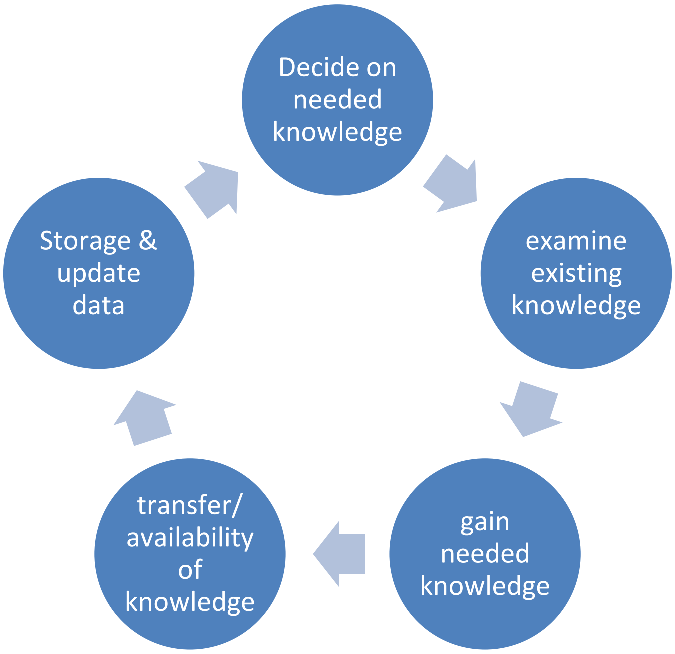

Figure 4. Loop of information (North et al. 2016, 11.)

4.3.1 Deciding on needed knowledge

The first step is to decide what relevant internal and external information is. External knowledge does not only mean information concerning customers but all parties outside of the company. Also the individual knowledge of personnel can be included.

4.3.2 Examining existing knowledge

In this step the current knowledge/information is being compared to the needed knowledge from the previous step. If already enough information exists start the circle again, focusing on other information. If not enough information exists proceed with the next step.

4.3.3 Gaining needed knowledge

In the case that the existing knowledge/information is not enough to reach your goals it is necessary to gain additional knowledge. To collect the needed knowledge all accessible sources should be used. Internal sources can be: co-workers, documents, earlier experiences for example from projects. When conducting internal sources it should be considered if there is an expert available. For that a skill table can be used that will be introduced later in this thesis. Earlier experiences and mistakes are an important part in knowledge gaining. Previous mistakes must be reported, analyzed and solved. This way it can be avoided to repeat a mistake twice. External source include: standards, universities, researches, customer, suppliers. The needed information is changing over time, therefore over time more and more information has to be gathered. After all wanted information is gained the next step can be proceeded.

4.3.4 Transfer/availability of knowledge

The transfer and availability of knowledge/information is strongly connected to the previous step. The previously gained information has to be transferred into a medium that is accessible to the workers in need. That can happen through simple documentation as paper, email, personal conversation or an IT-network. It is not always necessary to wait until all the wanted information is gained and transferred. Often it helps already to forward small pieces of the information for example planned schedules.

Reports about made mistakes or failures are not to use to blame people but to share the gained knowledge and to avoid that the same mistake will be repeated. Also reports about successful as well as failed projects are good resources that should be available for people.

Interpersonal communication is the most successful approach to transfer tactic knowledge or when direct feedback is needed. Explicit knowledge is best transferred by via documents. Good tools to spread documents among the workers are for example an intranet, a social software or an integrated production-learning-system. Those tools aim to connect the standardization, continuous improvement, teaching of new workers/new tasks and the updating of existing knowledge.

In knowledge or documentation transfer, the receiving party has to find a way handle information (know what) and transfer it to skill (know how). This transfer from knowledge to skill can be a good indicator for the quality of the existing documentation. A good document should be simple enough that a new worker or outsider could understand the content. (North et al. 2016, 7.)

If not all workers have access to an IT-database it has to be ensure that, documents are physically close and available for each worker. Examples would be process documentation, drawings and instructions in the assembly line. (Hinsch 2014, 66-69.)

It is important that workers are motivated to share and exchange their knowledge and actively learn from each other. Meetings for workshops and idea/process exchanges can be organized.

4.3.5 Data storage & update

To successfully store knowledge in documentation a company has several opportunities. The company has to find out which of the documentation ways are working best. In many cases the ways of documentation can also be combined.

Diagrams for example are good a good way to document a process or information onto a single page or sheet. They are easy to understand but still can contain a lot of information. When creating a diagram, for example a work flow diagram, repetitive symbols should be used and the factors contained in the diagram should be limited to avoid a too complicated picture.

As explained before there is different kind of knowledge/ information. Some can be stored in documents, other has to be stored in peoples mind. Those information can be shared with new workers and the next generation. For the information that is saved in peoples mind the risk of losing the risk has to be calculated. (North et al. 2016, 12.)

Saved or stored knowledge has to be updated when the processes of a company change. Also otherwise the timeliness of the existing documentation has to be checked regularly. Meaning that documents can lose their validity over time. Superseded information or documents which have lost their validity can be removed.

4.4 Documentation tools

4.4.1 Table of competences

To ensure a well working knowledge transfer it is recommended to see where the individual strengths and weaknesses of the workers are. One existing tool to do so could be a *skill table* or *matrix of competences*.

Table 1. Matrix of competences (North et al. 2016, 21.)

	Mr. W	Mr. X	Mrs. Y	Mr. Z
Techn.Knowledge	***	**	*	***
Customer support	***	***	***	*
Sales	**	***	*	*
Process	*	**	***	***

North et al. (2015, 21.) recommend that the competences of each worker can be filled in the table. This way not only the weaknesses of a team can be recognized but also experts can be identified and noted as future contact persons. Obviously not every aspect of knowledge can be documented in the table. Therefore the focus should lay on the most important processes/areas.

4.4.2 Documentation pyramid

The documentation pyramid shows the structure of an ideal documentation within a company.

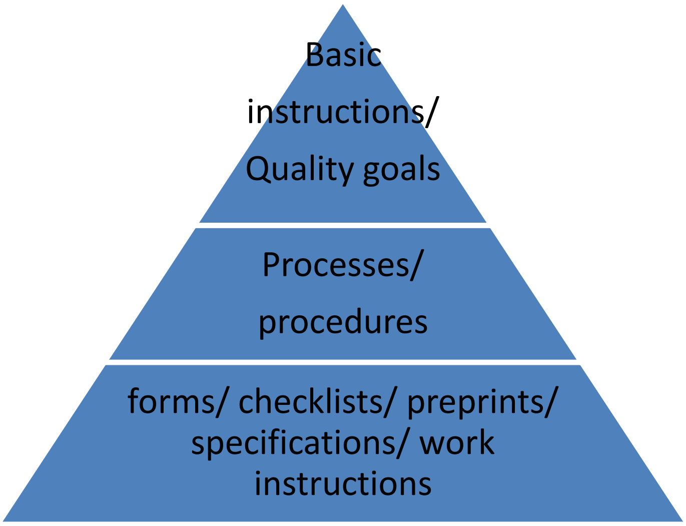

Figure 5. Documentation pyramid (Hinsch 2014, 138; Steinbrecher & Müll-Schnurr 2014, 16.)

As shown in Figure 6 on the top layer of the pyramid are the basic instruction and quality goals. Those goals and instructions have to be stored as a written document. If the company decides that no written quality handbook is necessary, those instructions form the base for all documentation.

The next level contains more detailed information about the processes and procedures taking place in the company. Those processes can be explained in a written way or as flow diagrams. Although it is not mandatory to create a written documents for the processes it is hardly advised to help visualizing the processes and gain a better understanding for what is done.

The third layer of the pyramid contains work instructions. It uses the flow diagram from the previous layer and adds more details to it. Further content are forms, preprints and checklist. Examples for those forms could be work step checklists to ensure all necessary steps in the process have been followed or a quality form where the quality of parts is noted. (Hinsch 2014, 138-139.)

5 Data management

When organizing a company's documents there are different ways in how to achieve that goal. Sometimes those ways of organizing can be connected to pick the best part of each. In other cases they repel each other and are not combinable.

5.1 Object focused structure

One way to create a structure of documentation is to follow the organizational structure that Junttan Oy has already created and maintains in order for the ISO9001. As shown in Figure 6 each main department e.g. Sales/Marketing, Production, Design/R'n'D, Service Aftersales would receive their own drive.

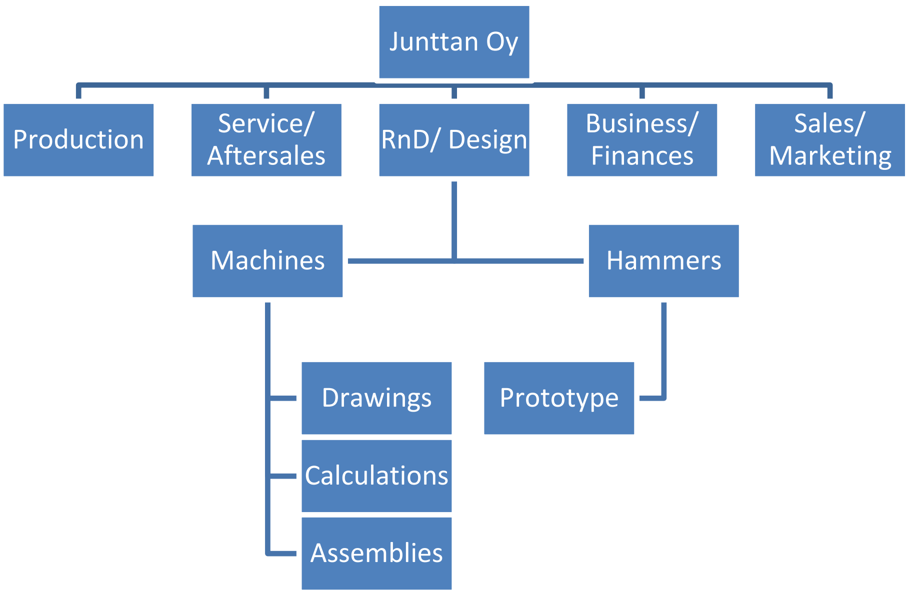

Figure 6. Object focused data management (based on Steinbrecher & Müll-Schnurr 2014, 120-121.)

Each department drive drives should contain folders organized according to the products, or *objects*, sold by Junttan Oy e.g. Machines, Hammers, etc. That attempt of organization collects the documents of the products according to their topics, such as drawings calculations etc. The advantage of this way of organizing is that the same information of different products can easily be compared. Examples would be if drawings of different machines have to be compared. (Steinbrecher & Müll-Schnurr 2014, 120-121.)

The disadvantage is that the connection between documents can be lost and the information to a certain machines has to be collected from different folders. (Steinbrecher & Müll-Schnurr 2014, 120-121.)

5.2 Process focused structure

As mentioned before in this paper there are several processes taking place in a company. The second alternative of document management is not to organize documents according to their topics, but according to the *processes* taking place in a company. Therefore the top level of the structure is based on the core processes like sales, planning, etc. rather than on the departments. (Steinbrecher & Müll-Schnurr 2014, 115-120.)

One example to make it clearer would be to look at the process of sales. Instead of organizing the documents to their topics they would be organized according to the process in which they are needed.

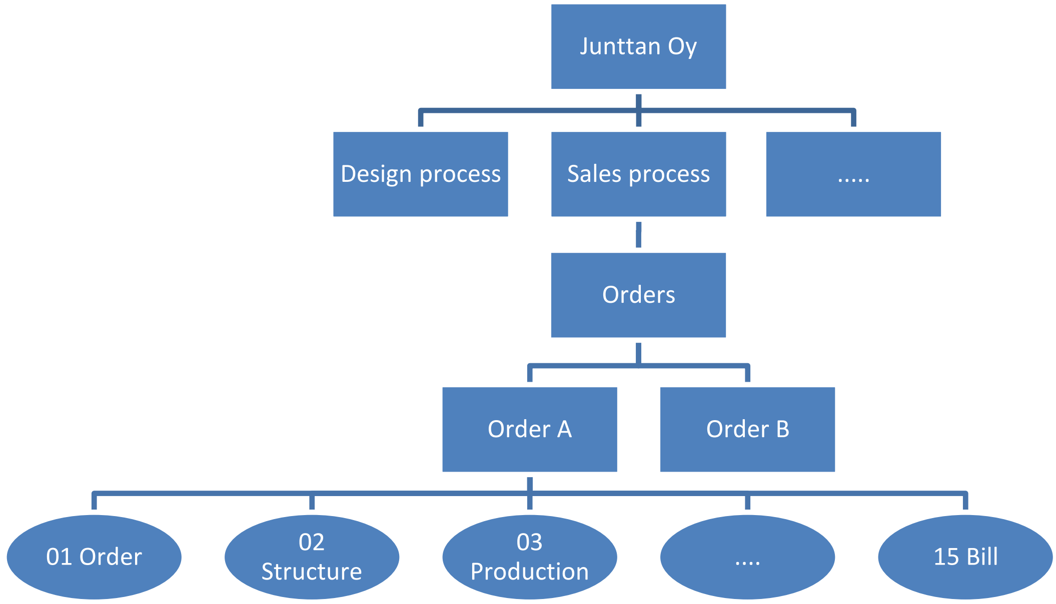

Figure 7. Process focused data management (based on Steinbrecher & Müll-Schnurr 2014, 115-120.)

The structure for the process based organization can be seen from Figure 7. In this way of data management all documents used in a certain process, are collected in one folder.

The example in Figure 7 shows the structure of a sales process. For each order coming in from customers a new folder has to be created. Each product order receives a running number and the customer's name to make it easier to find certain product orders. In the order's folder are all documents starting with the order from the customer, over the documents needed for production up to the bill and logistics documents for the customer are collected.

Each of the documents also receives a number to ensure that the documents have always the same order. The advantages are that all data belonging to one process are collected in one folder. This way it is easy to see the connection between documents in a process. Creating a document order like that can also serve as an indicator for the current situation and the progress of the process, as it can be seen easily by checking the existing or still missing documents in the folder. Disadvantages are that several machines cannot be compared as easy with each other. Another very big disadvantage if a process contains too many documents or sub processes the structure can become unclear. (Steinbrecher & Müll-Schnurr 2014, 115-120.)

5.3 Combined structure

An additional attempt is to combine the two previous introduced structure models.
This way it is possible to gain the advantages from both structures and at the same time rule out certain disadvantages.

The main level of the combined structure is based on the departments of Junttan Oy, just like in the objective focused structure. The department themselves are again separated in several folders that contain information about the company's subdepartments e.g. Spare part sales and Field service as subdepartments of Service. Within the subdepartments the documentation is organized according to the processes orientated structure.

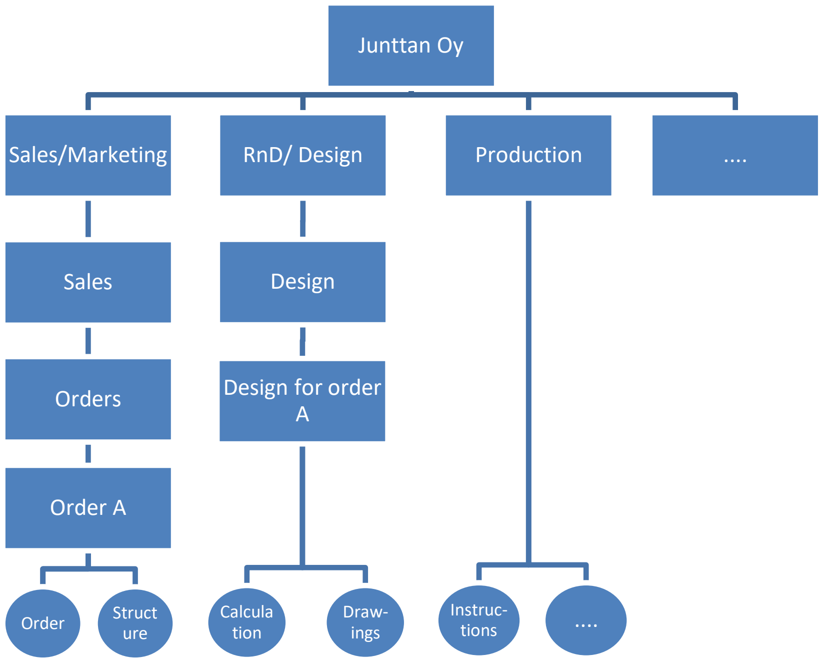

Figure 8. Object and process focused data management (based on Steinbrecher & Müll-Schnurr 2014, 124-128.)

As before a sales process is serving as an example for the for combined data structure. As shown in Figure 8 the sales process is starting with the Sales/Marketing department. After the negotiations with the customers Junttan Oy receives the Order A for a product. The sales team converts the order of a customer into a file that can be then accessed by the design department. They will then create all necessary information for the product like drawings, calculations and the bill of material for the production.

The production can access the bill of material and can therefore start to plan the production and assembly order. The process of selling and manufacturing of the product continues until it is shipped successfully to the customer. After the shipping the service team will have their own processes and folders.

With this kind of structure it should be remembered, that the access rights of the employees cannot only be restricted to their own field or department. It must be ensured, that the employees of the design have enough rights to access the information created by the sales team. (Steinbrecher & Müll-Schnurr 2014, 124-128.)

6 Communication survey

The following chapter is dealing with the survey and the results that has been created for this thesis.

The goal of the thesis was to analyse the current situation of the communication and documentation in my case company Junttan Oy. The focus of the question was laying on the satisfaction rate and structure of Junttan Oy's communication system.

There were several target groups chosen for this survey. First of all the employees of Junttan Oy to find out more about the internal communication. Other target groups were dealers and end-customers of Junttan Oy.

The survey has been created with Webropol and has been forwarded to 170 participants by email. A participants list for external parties has been created by relying on the competence and knowledge of Junttan Oy's sales personnel. They collected the contact information of the customers and dealers they believe to be the most important to ask.
For the internal participants, the database of the Junttan Oy has been used.

The participants were given 2 weeks to fill out the questionnaire, it was available from 17.4.2017 until 30.4.2017. Because of previous experience I decided not to create a paper version of the survey.

Since the official language of reports and documents within Junttan Oy has recently changed to the English language I decided against the possibility to fill in the questionnaire in Finnish.

6.1 Analysis

The analysis of the given answers to the questionnaire has been done by using the tools provided by Webropol. Those tools give the change to compare the answers of different groups to each other. This way it is easy to see the opinions and satisfaction rate of the different target groups.

I choose to compare the earlier mentioned target groups to gain a deeper insight on the internal and external communication of Junttan Oy. The difference in the results will show that a separation of internal and external communication as target groups has been a rather good choice.

All questions of this survey were mandatory and the possibilities to answer were depending on the question. Some questions allowed several answers to be chosen while others allowed to choose only one of the given options. Some questions also gave the possibilities to write an open text for the case that the given options did not cover all possibilities. Those are the reason that some questions have a higher amount of answers than the number of actual participants.

In several questions the participants had to choose a number between 1 and 10 to express their opinion about a certain subject. The reason for those answer option was that, to choose from given answers, would not have added good values to the analysis. The quantitative approach for those questions has been chosen to receive more detailed and measurable answers.

With 38 visits and 33 answers only a very small percentage (~20%) of the participants saw a need to answer the survey. From earlier experiences the 20% participants is a rather normal amount of answers. The low number of participants can have different reasons. Together with the knowledge of a small number of participants from earlier questionnaires certain reasons for not answering can be ruled out. It creates the picture, that the willingness within Junttan Oy to answer questionnaires is rather small.

As shown in Figure 9 more than half of the received answers (58%) are coming from Junttan Oy employees. Around 24 percentage of the participants have been customers. 12 percentage of the participants gave the answer to be dealers and 6% are none of the given options. The participants who answered with an open text stated that they are also employed at Junttan Oy, one of them as a superior. From this point of the analysis those participants will be included to the internal parties.

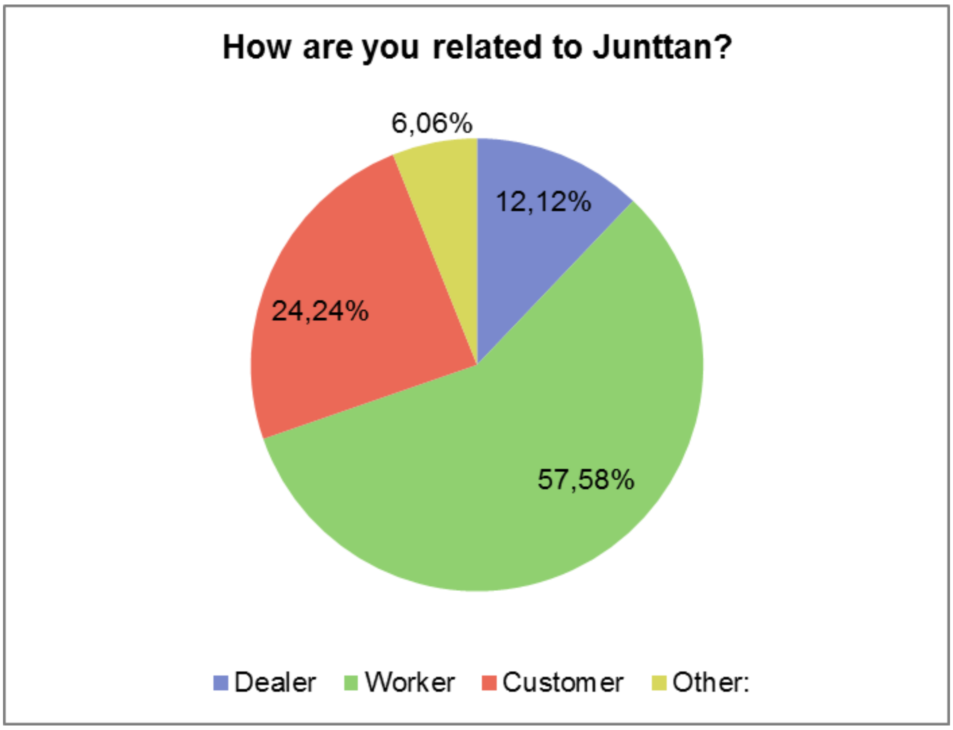

Figure 9. Distribution of participants into target groups

For question 2, the participants had the chance to choose between several answer possibilities to describe the overall communication that Junttan Oy is offering. I decided to give the participants the option to select more than just one answer. This way I cannot only see if the people are satisfied but also what the exact issues are that they might not be satisfied with. For example, the communication system can be well structured, meaning that that everyone always knows who the correct contact person is, but the overall the communication can still be slow.

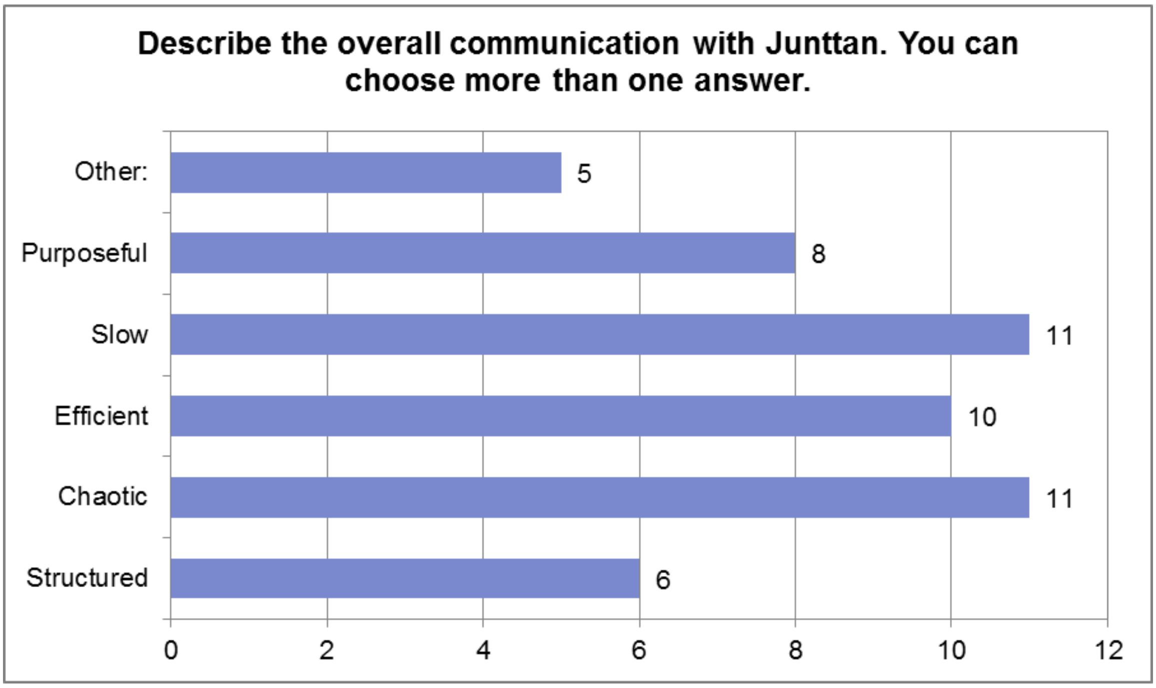

Figure 10. Overall communication with Junttan Oy

As Figure 10 shows, the highest amount of answers (11) have been given for the answer options *Slow* and *Chaotic.* The answer with the next highest amounts have been efficient (10) and purposeful (8). On the second last place is structured (6) followed by *Other* (5). The interesting part in the answers is, that the external parties almost exclusively choose the positive alternatives.

The negative answers came mostly from workers of Junttan Oy. Almost half of the workers described the communication as chaotic and slow. But also the option *Purposeful* received 6 out of 19 possible votes from the workers.

A rather good explanation for this mix can be found from the open text answers. In general the workers seemed to share the opinion that necessary information is not spread as public information and the way of communication is depending very much on subject that is being handled. Also an open answer from one of Junttan Oy's dealers describes the quality of the communication as unstable and that it experiences sudden changes between good and bad.

Figure 11 describes the main communication channel used in the case company Junttan Oy. The purpose was not only to see what communication channels are being used but also what channels are not being used and how successful are channels like social media and newsletters are.

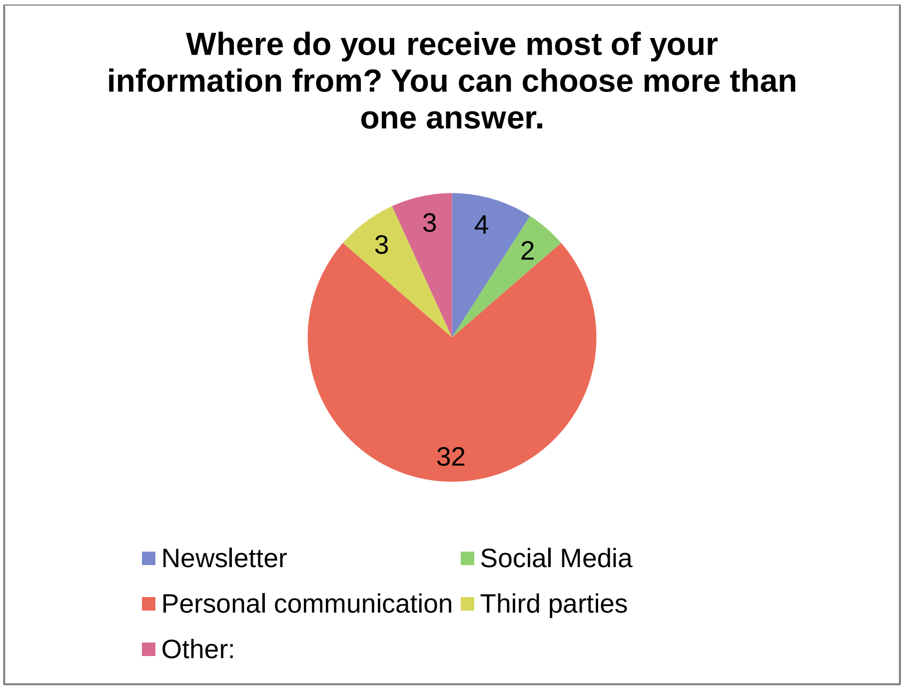

Figure 11. Most common communication channel

As Figure 11 shows, around 73% communication is delivered through personal communication either happening by email, oral communication or instant messages. All other options received an almost equal amount of votes between 5% and 9%.

Separated to the target groups the dealers and customers of Junttan Oy all chose personal communication as the most used channel to receive information. It may not be surprising since most customers/dealers have their contact person within Junttan Oy, nonetheless it could also be an indicator that not enough information is spread via newsletters and social media.

The workers of Junttan Oy also chose personal communication as the main communication channel but also chose several times the other given options as information sources.

The fourth question of the survey had the purpose to find out how included workers and customers feel themselves in the flow of information. The participants were given the chance to choose a number between 1 and 10, where 1 means not included at all and 10 means perfectly included, to describe their opinion.

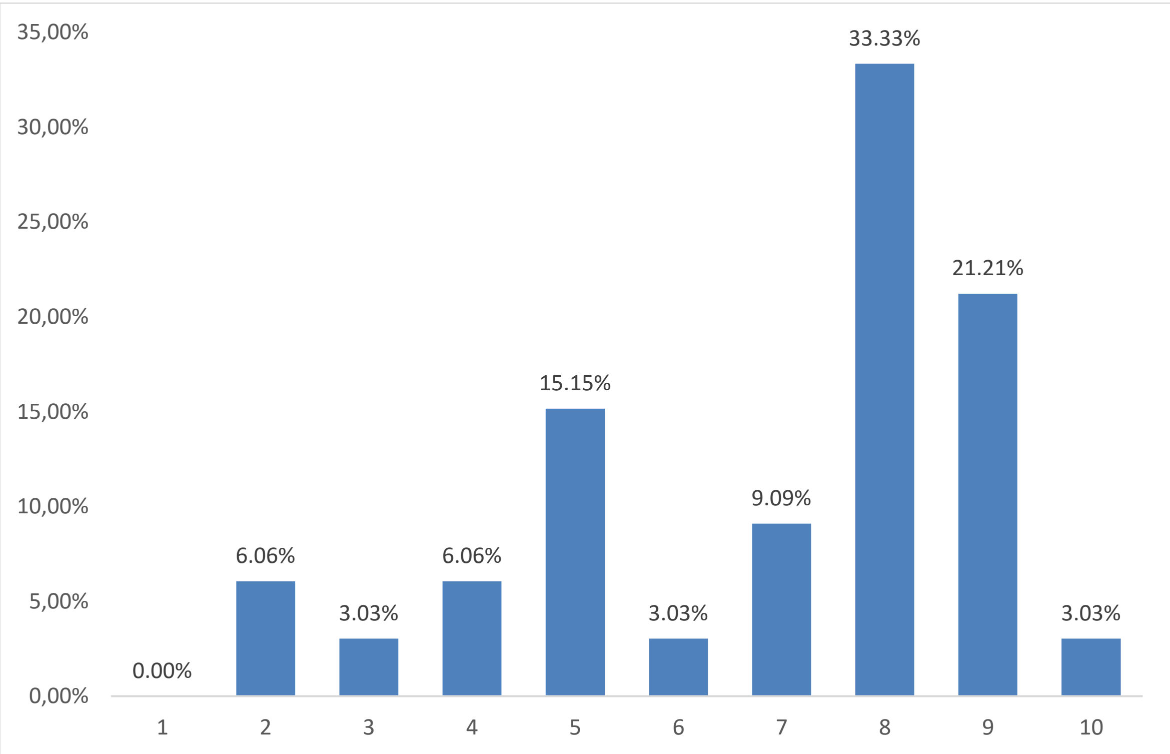

Figure 12. Inclusion in the flow of information

The average satisfaction rate for how included people feel to the flow of information was at 6.41. The top answer was option 8 with 33.33% followed by number 9 with 21.21%. Those are very good values meaning that more than half of the participants seem to feel very included in the flow of information.

As in the previous question the external participants answered with rather good numbers choosing mostly number 8 and 9, one felt himself even perfectly included and chose the best possible option.

The workers had again a mixed spectrum of answers. Almost half of the participants chose the answers 8 and 9 while the rest is almost evenly spread across the other possibilities. Noticeable was that from the target group *Other* the answers were 2 and 5, meaning that, even in the best case, a superior does not feel himself included in the flow of information.

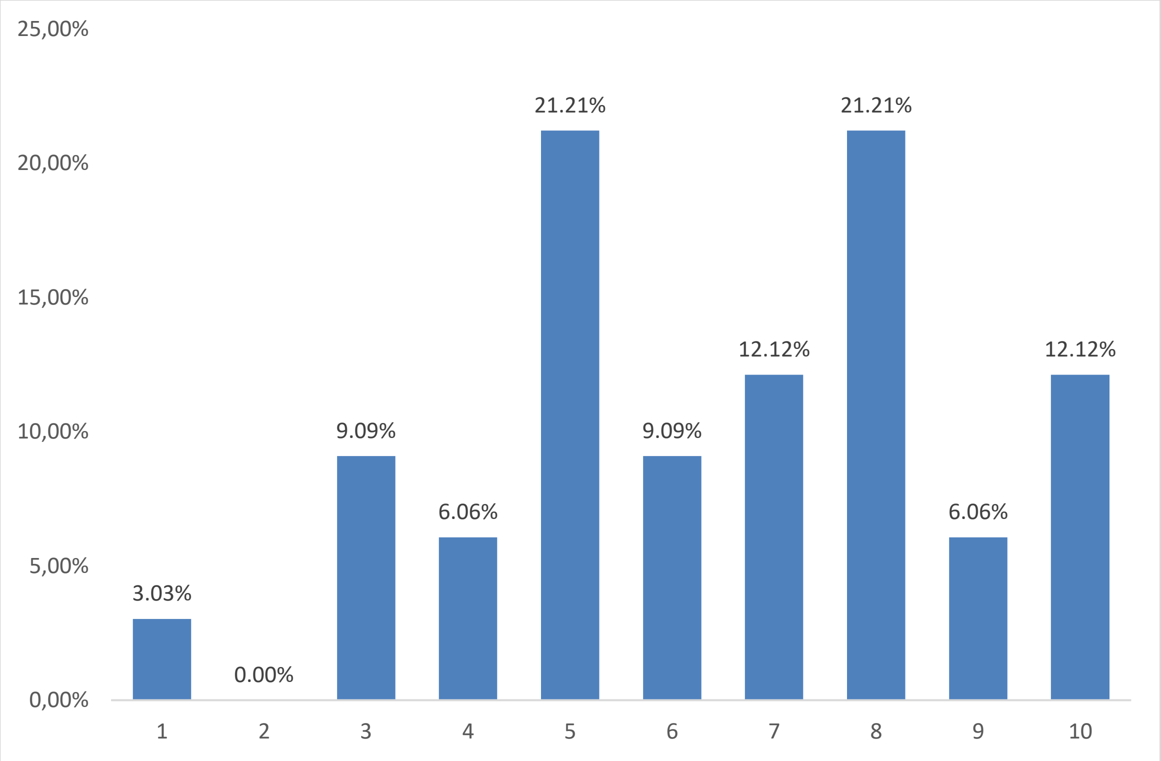

Figure 13. Response time

Question 5 had the purpose to measure the speed in which requests and demanded information can be received by Junttan Oy. The participants had the same answer possibilities as the previous question, 1 meaning a very slow response time and 10 a very fast response time.

As shown in Figure 14 the satisfaction rate concerning the response time of requests and demanded information is very mixed. The average of all given answers lays at 6.45.

The highest ratings have been mostly given by the external participants, especially the customers had a very high satisfaction rate.

The chosen answers of the internal participants were spread almost evenly among all answers. Also here should be noted that even the superior has not given a higher rating than 5.

The purpose of question 6 was to analyse the satisfaction rate concerning updates and newsletters published by Junttan Oy. The form of updates/newsletter includes all forms such as social media updates, email newsletters etc.

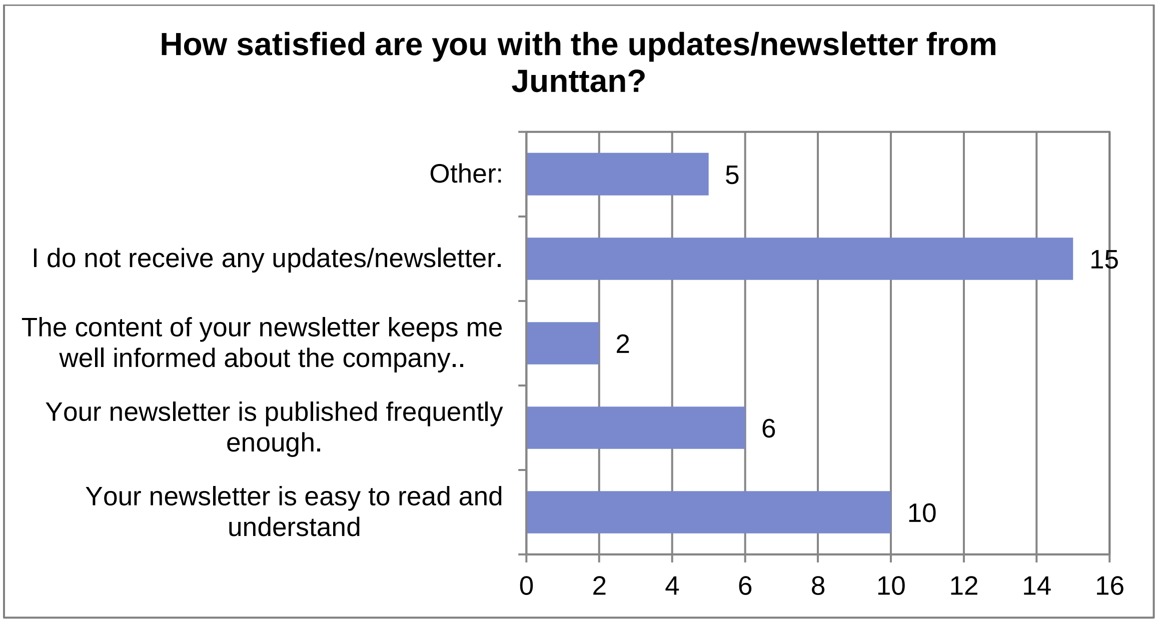

Figure 14. Satisfaction rate of updates/newsletter

When reading Figure 14 it should be noted, that all answer options had a positive background. Negative comments could be either stated by open text or by not selecting any of the positive answers.

Less than half of the external participants stated that the updates are easy to understand or are published enough frequently. The workers of Junttan Oy were overall quite satisfied with the content and frequency of updates and newsletters.

However, as can be seen from Figure 14 most participants do not receive any updates or newsletters. This answer option has received by all parties the highest selection rate.

Since Junttan Oy is a company that is manufacturing complex construction machines it is, especially for the customer, important that they offer an extensive and easy understandable literature to describe their products and services.

The goal of question 7 was therefore to measure the satisfaction of the customers/dealers and to see the opinion of Junttan Oy's own workers concerning the literature.

As Figure 15 shows all answers received and almost equal amount of numbers from all participants. Even the answer option to write an open text has been selected more often than in any other question, indicating that it is a topic demanding attention.

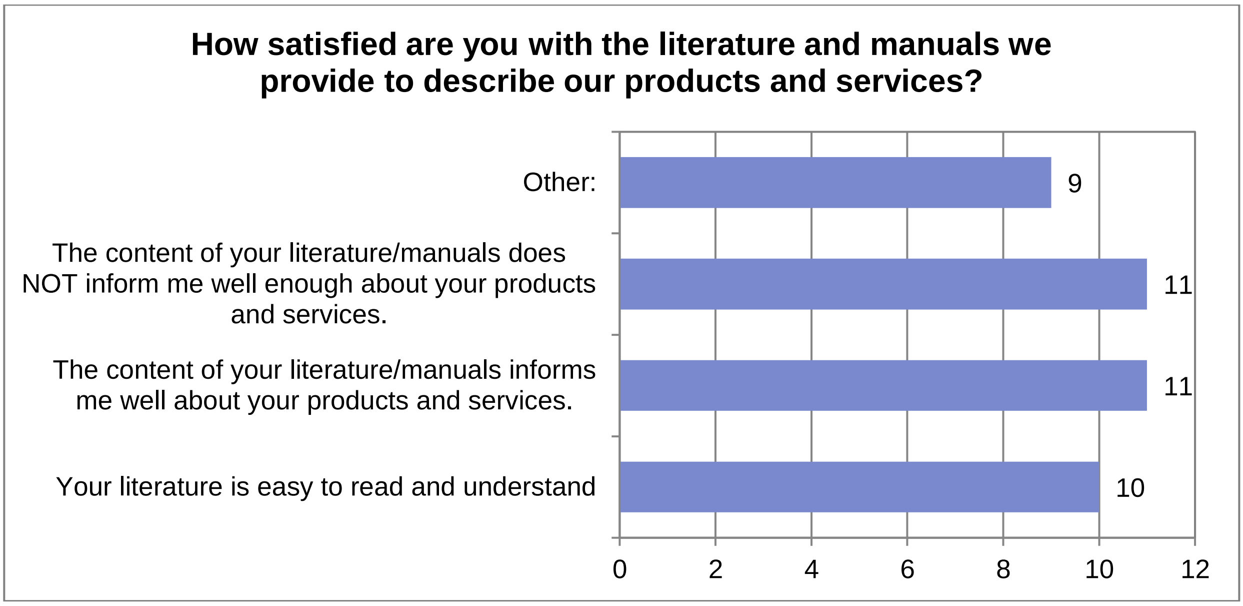

Figure 15. Satisfaction rate of literature

While the dealers of Junttan Oy are rather unhappy with the provided literature the customers chose mostly positive responses. The internal responses were also almost equally spread throughout all given options.

The most interesting part about question 7 are the open text answers. Almost all participants seem to be unsatisfied concerning the spare part books provided. According to the participants the spare part books do not provide enough information. However, also some feedbacks state that the quality of the books has been improving but that old books should be updated.

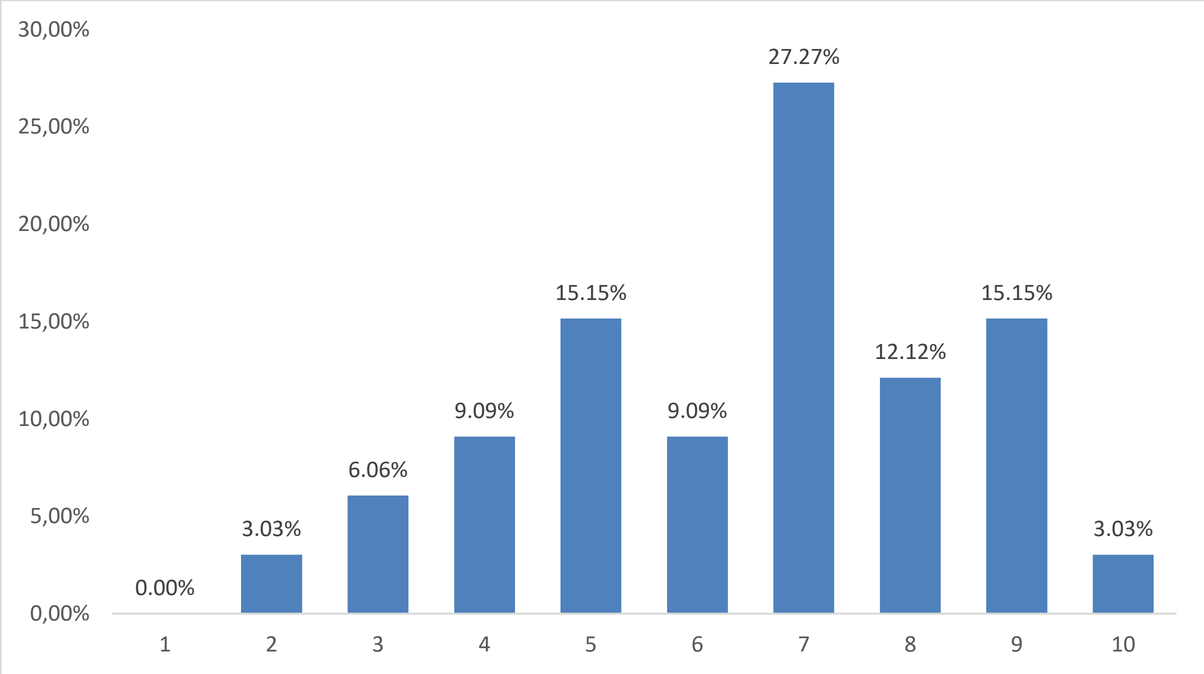

Figure 16. Overall satisfaction rate

Figure 16 shows the satisfaction rate of the participants concerning the overall communication effort by Junttan Oy. As in earlier questions I decided to choose a quantitative attempt to find out how satisfied the participants are. They could numbers choose between 1 and 10, where 1 is not satisfied and 10 is very satisfied.

The satisfaction average of all participants lays at 6.45. As in previous questions, the satisfaction of the customers over the all communication is very good as they only chose numbers from 7 and higher. Also the dealers are rather satisfied with the lowest number given being a 5. This may not mean that the communication is very good, but at this point no external party is unsatisfied with the overall communication effort.

The internal satisfaction on the other hand is not as high. The average satisfaction number of all internal participants lays at only 5.8. Considering the previous answers given by the workers that result had to be expected.

The last question of the survey was not mandatory but allowed the participants to write an open text to share their opinion on how Junttan Oy might be able improve their communication system.

Many helpful tips have been given from all target groups. While the external participants demand more frequent updates on the products and personnel changes, the workers of Junttan Oy see the need for a more open and more efficient communication between the departments.

The open text answers given in this questionnaire can be found in the appendix of this thesis.

7 Conclusion

As shown in this thesis the communication and documentation are crucial parts in a company and although the requirements given by the ISO are not very strict, the importance of those subjects should not be underestimated.

During the time in which this thesis has been created, Junttan Oy already achieved the goal to receive the certificate of the ISO9001:2015. Reaching that objective is a major success to Junttan Oy. This will not only give them a chance to defend their market share but will also open new possibilities and chances to gain a higher amount of market share. To initially receive the certificate it was not necessary for the clauses of communication and documentation to be perfectly developed yet. The main issue was that they are currently under development with the goal to be ready in the close future.

While creating this thesis I have been working at the same time in the company. This was a very good opportunity for me since I could gather daily more insight what topics I should focus on and where possible problems may occur.

Although I have been working only for around one year at Junttan Oy I had the great benefit to work together in and with different departments and got to experience how they operate. I believe that this is one fact why I chose to write my thesis about the communication. I saw that there was a need for an improved communication especially internally between the departments of Junttan Oy. Instead of relying on each other’s experience and information each departments mostly operates for themselves.

Often the realization that all departments are deeply connected, and that every decision made can have a big influence on the other parts of the company, is missing. Since the communication between the departments does not seem to happen on a natural level it must be the management’s task to support and encourage the exchange of information.

That is the reason I had the idea for some kind of workshops or meetings between the departments. This could help the workers to recognize his own position in the company and what influence his decision can have. But also the exchange of information and for example customer feedback can be a crucial point of those meetings.

The sales department can receive feedback from the service department, who often have to deal with the operators, who have different demands to the products than expected and therefore demand service. The design department can receive feedback from the production and spare part sales to rethink some decision and maybe try to find a solution that is friendlier for the rest of the company and the customers. The service department can work closer together with the documentation to achieve manuals and literature that will satisfy the customer's needs.

Although the thought to lessen one's own work is understandable, each employee should see his responsibility. If he has the chance to lessen several people's work load by using a bit of extra effort in his own task it should be his duty to do so.

The data management has struck me as an important topic while I was working on this thesis. The current situation of digital database is working but the efficiency is not very high. Getting familiar with the database is taking long time for new employees. But also employees working at Junttan Oy have difficulties working with the database once they have to find something outside their daily routine and workspace.

To create a reasonable data base structure the help of all employees is necessary. If the database is organized according to the departments and processes, as explained in Chapter 5.3, the workers and superiors of the departments obviously have the best idea what way of organizing is the most efficient. But also here the earlier mentioned workshops/meetings between the departments can offer good possibilities. Someone who is not at all familiar with the documentation can point out in which way the database seem to have logic mistakes and where possible problems or hard times for new employees might occur.

Also old documents have to be revised to the point if they are still needed. It should be checked if the documents maybe exist in two different places or if the problem has been resolved. It could also be that a document does not anymore answer to the newest standards, laws and regulations. While it is always good to keep the knowledge of past projects, requests and experiences available, sometimes also the decision to remove files has to be made.

In the end the responsibilities, in order to create a successful and efficient communication, lay mainly within each employee. The management can encourage and support the attempts to communicate, but as long as the employees refuse to use the tools and chances offered, the internal communication will not improve.

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APPENDIX ONE: SURVEY QUESTIONS

1. How are you related to Junttan?
   1. Dealer
   2. Worker
   3. Customer
   4. Supplier
   5. Other:__________

2. Describe the overall communication with Junttan. You can choose more than one answer
   1. Structured
   2. Chaotic
   3. Efficient
   4. Slow
   5. Purposeful
   6. Other:______

3. Where do you receive most of your information from? You can choose more than one answer
   1. Newsletter
   2. Social Media
   3. Personal communication
   4. Third parties
   5. Other:_______

4. How included are you in the information flow that directly concerns you or your work?
   - Choose between 1 – 10 (1 = Not at all included; 10 = very well included)

5. How fast do you receive response to your requests?
   - Choose between 1 – 10 (1 = Very slow; 10 = very fast)

6. How satisfied are you with the updates/newsletter from Junttan?
   1. Your updates/newsletter is published frequently.
   2. Your updates/newsletter is easy to read and understand.
   3. The content of your updates/newsletter keeps me well informed about the company.
   4. I do not receive any updates/newsletter.
   5. Other:______

7. How satisfied are you with the literature/manuals we provide to describe our products and services?
   1. Your literature is easy to read and understand
   2. The content of your literature/manuals informs me well about your products and services
   3. The content of your literature/manuals does NOT inform me well about your products and services
   4. Other

8. How satisfied are you with our company's overall communication efforts?

   - Choose between 1 – 10 (1 = Not satisfied; 10 = Very satisfied)

9. Tell us your opinion on how we can improve our communication. Please answer in Finnish or English

   - Open Text

APPENDIX TWO: SURVEY RESULTS WITH OPEN TEXT ANSWERS

1. How are you related to Junttan?

Number of respondents: 33

	How are you related to Junttan?			
	Dealer (N=4)	**Worker (N=19)**	**Customer (N=8)**	**Other: (N=2)**
Dealer	4	0	0	0
Worker	0	19	0	0
Customer	0	0	8	0
Supplier	0	0	0	0
Other:	0	0	0	2

Open text answers:

Other:

- Superior
- Red Headed Step Child or sometimes known as US operations employee/worker

2. Describe the overall communication with Junttan. You can choose more than one answer.

Number of respondents: 33

	How are you related to Junttan?			
	Dealer (N=4)	**Worker (N=19)**	**Customer (N=8)**	**Other (N=2)**
Structured	1	2	3	0
Chaotic	0	9	0	2
Efficient	3	2	5	0
Slow	1	7	1	2
Purposeful	0	6	2	0
Other:	1	3	0	1

Open text answers:

Dealer:

- The communication is up and down. Sometime it is ok and suddenly it change to be really bad.

Worker:

- All the possibilities found, depending of the subject
- Occasionally inappropriate
- sometimes some necessary information is not spread as public information

Other:

- Requests are miss understood.

3. Where do you receive most of your information from? You can choose more than one answer.

Number of respondents: 33

	How are you related to Junttan?			
	Dealer (N=4)	**Worker (N=19)**	**Customer (N=8)**	**Other: (N=2)**
Newsletter	0	3	1	0
Social Media	0	2	0	0
Personal communication	4	18	8	2
Third parties	0	3	0	0
Other:	0	3	0	0

Open text answers:

Worker:

- Junttan network/ discs
- e-mail 70%, by mobile phone 20%, by WhatsApp 10%
- email, meetings, talking with co-workers

4. How included are you in the information flow that directly concerns you or your work?

Number of respondents: 33

Average: 6.91

	How are you related to Junttan?			
Not included at all - Perfectly included	**Dealer (N=4)**	**Worker (N=19)**	**Customer (N=8)**	**Other: (N=2)**
1	0	0	0	0
2	0	1	0	1
3	0	1	0	0
4	0	1	1	0
5	1	3	0	1
6	0	1	0	0
7	0	3	0	0
8	2	5	4	0
9	1	4	2	0
10	0	0	1	0

5. How fast do you receive response to your requests?

Number of respondents: 33

Average: 6.45

	How are you related to Junttan?			
Very slow - Very fast	**Dealer (N=4)**	**Worker (N=19)**	**Customer (N=8)**	**Other: (N=2)**
1	0	1	0	0
2	0	0	0	0
3	0	3	0	0
4	0	2	0	0
5	0	4	1	2
6	2	0	1	0
7	1	3	0	0
8	0	4	3	0
9	0	1	1	0
10	1	1	2	0

6. How satisfied are you with the updates/newsletter from Junttan?

Number of respondents: 33

	How are you related to Junttan?			
	Dealer (N=4)	**Worker (N=19)**	**Customer (N=8)**	**Other: (N=2)**
Your newsletter is easy to read and understand	1	6	3	0
Your newsletter is published frequently enough.	0	3	3	0
The content of your newsletter keeps me well informed about the company..	0	0	2	0
I do not receive any updates/newsletter.	3	8	3	1
Other:	0	3	1	1

Open text answers:

Worker:

- Maybe I have not seen any

Customer:

- very seldom

Other:

- Well...what newsletter?

7. How satisfied are you with the literature and manuals we provide to describe our products and services?

Number of respondents: 33

	How are you related to Junttan?			
	Dealer (N=4)	**Worker (N=19)**	**Customer (N=8)**	**Other: (N=2)**
Your literature is easy to read and understand	1	5	4	0
The content of your literature/manuals informs me well about your products and services.	0	6	5	0
The content of your literature/manuals does NOT inform me well enough about your products and services.	2	8	0	1
Other:	1	4	2	2

Open text answers:

Worker:

- It depends how recent they are. Old ones, very bad. Newer manuals are improving.
- I use other sources to get information

Customer:

- spare part documentation is poor

Other:

- Never seen one
- The archived and Sovelia data is excellent, can be time consuming because I have to constantly translate

8. How satisfied are you with our company's overall communication efforts?

Number of respondents: 33

Average: 6.45

	How are you related to Junttan?			
Not satisfied - Very satisfied	**Dealer (N=4)**	**Worker (N=19)**	**Customer (N=8)**	**Other: (N=2)**
1	0	0	0	0
2	0	1	0	0
3	0	1	1	0
4	0	1	0	2
5	1	4	0	0
6	1	2	0	0
7	1	7	1	0
8	0	2	2	0
9	1	1	3	0
10	0	0	1	0

9. Tell us your opinion on how we can improve our communication. Please answer in Finnish or English.

Number of respondents: 13

Dealer:

- Try to think what end customer want from spare parts manuals.
- New product changes notices should be sent out prior to shipping of the product.
- Junttan has to follow the agreements we make concerning communication.
  Junttan changes their organization very often and then we do not knew who we are going to contact.

Worker:

- We need more open communication inside the company over departments.
- Old parts manuals are bad, and should be updated.
  No info about machine update kits.
- I think it would be great to provide more written information in English
- I don't know but I hope CRM system is working in Company and it is set to the high level.
- Organize the knowledge into areas or sectors. Some customers need information of use, some others of service etc. Dividing knowledge makes searching faster and less frustrating.

Customer:

- More complete part lists.
- I`m very glad to have one person regarding spare parts
- Our company / or me have an agreement whit Junttan to maintain contact with one person (Mika Huomo) regarding, troubleshooting, spear parts, or whatever we need to know. Great value for us. Thanks.
- Communication with Junttan is very efficient. I have worked with Junttan machinery for over 12+ years in Australia and currently South East Asia and it has always been a pleasure.

Other:

- Projects: Take advantage of team collaboration software/apps. That are task oriented, with a co-worker assigned to be held accountable for making sure deliverables are supplied on time or reasons documented for delays.
  Tech Support: Real time status database, showing all users the question, process for solving the problem, and solution. Allow it to be archived and searchable to reduce response time for repeated or similar questions.

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