Customer product returns – feedback and knowledge management

Alena Klapalová

Abstract

Purpose – The purpose of this paper is to provide a multidimensional understanding of the management of feedback from customer product returns and the management practices that lead to the occurrence of product returns in the context of knowledge management. The characteristics of product returns indicate that to manage them requires specific knowledge management, as the nature of their management is rather complex.

Design/methodology/approach – Understanding of feedback concept for the purpose of product returns avoidance management and its linkages with knowledge management through the theoretical review was performed first. Second, soft systems methodology (SSM) to analyze the very complex situation, as the product returns present, provided the conceptual framework for empirical research. The principles and best practices of SSM were followed and an analysis of documents together with the theoretical knowledge of feedback, product returns and knowledge management served as the basis for the action research.

Findings – The research highlighted the importance of knowledge management (even in a rather simple form) for the solution of the problematic situation and underlined the necessary interconnections between different areas of business processes management and the need to manage knowledge. It also showed that product returns act as important feedback for the whole organization.

Originality/value – This paper is the first attempt to apply current knowledge of the feedback construct into the knowledge and product returns management. It is also the first attempt to apply SSM to product returns management.

Keywords Product returns, Feedback, Knowledge management, Soft systems methodology, Case study

Paper type Case study

Alena Klapalová is based at Department of Corporate Economy, Masaryk University, Brno, Czech Republic.

1. Introduction

Product returns have negative impact on a firm's profitability and on its relationships with stakeholders, particularly in certain industries. According to Bernon et al. (2013) product returns are symptoms of independent and nonintegrated management practices between internal and external organizational actors. From the internal point of view, the nonexistence or insufficient integration and information and knowledge sharing that lead to the emergence of product returns is mostly between logistics, sales, marketing, quality and product development functions (Tibben-Lembke, 2002; Russo and Cardinali, 2012; Xu et al., 2015; Bernon et al., 2016). Espinosa (2016) considers product returns a strategic relationship management tool. These characteristics of product returns and their management indicate that to manage product returns requires specific knowledge management as the nature of their management is rather complex.

For most companies, product returns are generally the largest category of returns in general (Rogers et al., 2002). These returns can be defined as sold products that are taken back from customers most often due to their dissatisfaction with the product (Yalabik et al., 2005) or in a much wider sense "for any reason" (Souza et al., 2005, p. 1). They are returned within

some specific time window, which is either based on legislation or allowed by the contract or returns policy of the selling company and they are usually accompanied by money-back guarantees or refund (Pince et al., 2016).

Customer product returns are bearers of potentially rich feedback on gaps, errors or problems in the performance of forward value creating and delivering processes in forward supply chains. Jayaraman and Luo (2007) label this potential hidden in product returns as a wealth of information.

Despite this fact, and despite the incorporation of the information flow in product returns from the customer to the seller (producer) as reflected in the most accepted definition of reverse logistics formulated by Rogers and Tibben-Lembke (1998, p. 2): "The process of planning, implementing, and controlling the efficient, cost-effective flow of raw materials, in-process inventory, finished goods, and related information from the point of consumption to the point of origin for the purpose of recapturing value or proper disposal", information and feedback flow regarding all types of material return flows has so far attracted very little research. The same can be said of knowledge. A recent systematic literature review (Klapalová and Krčál, 2017) has shown that knowledge management is extremely underexplored not only in product returns theory, but in the whole of reverse logistics or reverse supply chain management theory. A very similar situation is assumed with regard to the attention paid to information, feedback and knowledge management concerning product returns for the overall management of companies.

The primary aim of this article is to help bridge this gap, based on a review of existing research on the concept of feedback to establish an understanding of how existing knowledge about feedback can be applied into the avoidance and reduction of product returns and how feedback can be understood in the context of knowledge management to help with the aforementioned aim of improving the management of product returns.

An individual case study provides insights into the organizational behavior with regard to product returns and their management and into the possible utilization of feedback and knowledge management linked to product returns avoidance and reduction. The focus is on two subcategories of product returns: warranty claims and complaints. The reason behind this choice lies in the fact that both among the most frequent types of product returns and their handling is usually emotionally colored.

Inquiry into the situation in the company of interest is done applying an action research approach and using Soft Systems Methodology (SSM). The situation with product returns is rather complex and messy, and the management system which generates returns is unclear. Several relevant stakeholders are part of the system and their different perspectives can trigger the occurrence of product returns, so reflection on their perspectives and common learning and understanding can help to find potential improvements. SSM is one of system thinking methods that can be helpful in such circumstances (Checkland, 2000a). As McKay and Marshall (2001, p. 54) explain, SSM can also be used as a conceptual framework to guide empirical research.

This article reacts to the call of Bernon et al. (2011), and Chen et al. (2017) to address the existing gap and provide qualitative research on parts of returns management from a holistic framework and from management and other relevant stakeholders' perspectives.

2. Theoretical review

2.1 Product returns as the bearer of feedback

Espinosa (2016) says that about 52 per cent of businesses do not know how to handle, how to dispose or what to do with product returns. One argument could lie in the cross-functional character of product returns management which interfaces with all value-added and supporting processes across the whole organization (demand management, order fulfillment

and logistics, product development, manufacturing and commercialization, marketing, financing and accounting and those between supply chain members (together with customer and supplier relationship management) (Rogers et al., 2002; Mollenkopf and Closs, 2005). Bernon et al. (2011) call for a holistic approach to returns management. However, as they state (p. 485), "only a few have implemented business wide practices aimed at minimising the effects of returns." Despite the growing understanding of the possibilities using product returns for value capturing and as a profitable issue many companies still perceive them as a problem and as an anecdotal event, and therefore do not commit the optimal level of resources, understanding, attention and support to their management) (Espinosa, 2016; Chen et al., 2017). Espinosa also stresses that returns management requires an appropriate information system. If not adequate, it reduces the effectiveness of performance as much important and valuable information and feedback from customers and returned product is lost.

The reasons for why customers decide to return products are miscellaneous – from the highly subjective (fraudulent behavior) to the highly objective (warranty returns because of poor quality (De Brito, 2003; Powers and Jack, 2015). In a more detailed view, the product returns initiated by customers and relevant for this study occur due to product failures or defects, the product getting damaged during delivery, wrong delivery, incomplete shipments, and due to lower than expected product quality, or when customer is simply not satisfied (Lee, 2015) or due to the fact that the product fails to meet the expectations (that covers much of the previous reason) (Bernon et al., 2011; Rogers et al., 2013). Quality problems are closely linked to the product design, where design specification of features based on customer requirements should be incorporated (Shaharudin et al., 2014).

The above-mentioned reasons for customer product returns could be grouped into the two most typical categories: warranty claims and product complaints. "A warranty is . . .an express or implied statement of responsibility which promises certain services or satisfactions to the buyer" (Udell and Anderson, 1968, p. 1). Alongside legislative requirements contract-based agreement warranty can fulfill a protective and promotional function (Udell and Anderson, 1968; Murthy et al., 2004). For the producer or seller, the warranty stands for the obligation to compensate the customer for some form of loss by repair, replacement, or refund if the product fails. Providing the warranty results in additional costs and an added resources, so the impact on performance is negative (Blischke and Murthy, 1992; González-Prida Díaz et al., 2012). The answer is to manage warranties properly in the form of warranty management and setting its efficiency and effectiveness. Information from warranties are very important especially for product design, development and production (González-Prida Díaz et al., 2012). Complaints, though their purpose is rather similar to warranty claims, have substantially more negative emotional connotation which is related to the level of dissatisfaction. In this case, the customer may hope for some compensation, but the producer or seller's formal obligation to reimburse is not guaranteed. Complaints can be regarded as customer's "escape from or attempt to change the unwanted situation" (Istanbulluoglu et al., 2017, p. 1111).

Knowledge of costs and the need for other resources to be involved in product returns as well as knowledge of performance related to returns management are also considered as one of the weakest points since costs are often hidden in different processes across the organization and because they often lack accuracy and suitability for decision making (Bernon et al., 2011). Ravi and Shankar (2005) stress that inappropriate or missing performance management of returns is one of the main barriers to managing returns in an effective and efficient way. As, for instance, Shaharudin et al. (2014) state, product returns affect a company's profitability and relationships with customers and other stakeholders. If the performance is unknown, the potential value recovery is lost.

Customer product returns are bearers of potentially rich feedback on any gaps, errors or problems in performance of forward value creating and delivering processes and knowledge of these issues may be used not only for making the improvements but also for new value creation or at least for some value capturing. Jayaraman and Luo (2007) label

this potential hidden in product returns as a wealth of information. Recapturing the optimal value and feedback when dealing with product returns depends on the management knowledge of multiple dimensions of this feedback, supporting managerial and operational practices, the existing strategy of working with customer feedback and on the employeés knowledge (especially of the front-line employees) in being able to correctly identify, verify, evaluate the returns, as well as making further decisions about the product disposal (Stock et al., 2006; Wirtz et al., 2010). Value can be seen in the reduction of turning returns into waste by resale, repair, dismantling and use of some parts, recycling (if possible), donation (and positive public image), the exhibition of good citizenship and so on (Rogers et al., 2002). Such a change is based on the learning and innovative environment.

Espinosa (2016, p. 18) points out that what is important is the existence and content of employeés a reservoir of decision-making resources, and perception and cognition of a given situation which can decrease or "increase cognitive biases (e.g. memory errors), leading to the overestimation or underestimation of information". The perception of pressure (time, performance, difficulty of task within his/her authority, responsibility and given flexibility also within his/her knowledge and experience) and the perception of the self (e.g. self-efficacy) or the commitment to the task and to the organization, the existing motivation and stimulation, quality of relationship with management of the organization (and organizational climate or culture) are the factors that form the decision about product returns handling and disposal and consequently about performance of returns management and company's performance (Nasr et al., 2018). Climate reflects management values which are expressed in policies, practices and procedures (Espinosa, 2016). If feedback is to be properly used, a positive, creativity supporting and proinnovative climate is needed (Hu et al., 2016). Caemmerer and Wilson (2010) discuss the role of employees' pride regarding the organization and they also mention positive relationships between employees and senior management, as both strongly promote their willingness to work with feedback. Proud and committed employees also have stronger impression that organisation-wide feedback mechanisms is a facilitator to organizational learning and improvement and they use any information more intensively for their decision-making when dealing with customer feedback.

This study is particularly devoted to four categories of feedback: feedback from product returns returned by customers, feedback from customers (in the form of warranty claims and complaints) and feedback from management to employees and from employees to management with further interest in other categories of feedback based on the stakeholder approach. Customer feedback is a broader concept and concerns any type of communication – explicit or implicit, conscious or unconscious – (which can be understood as feedback) from a customer towards or about company concerning goods and customer service or related to the experience or expression of perceived quality of relationship with a company (Nasr et al., 2018). This means that customer feedback may but also need not be directly linked to a product return and the product itself can offer some feedback that the customer is even not aware of. This is the point for the return processes of product evaluation.

Product return feedback communicates about product quality, functionality, durability, reliability, style and packaging, explicit and latent user's needs and therefore it can bring valuable ideas for future product and process design and improvements not only for the producer but also for the suppliers of the producer (Fundin and Bergman, 2003; Wellsandt et al., 2014; Ju-Miao, 2010). Both product and customer feedback can assist in performance measurement and management, can help with competitive advantage and help to promote a good relationship with customers and suppliers (Nasr et al., 2018). As Istanbulluoglu et al. (2017) argue, especially with regard to both customer complaints and warranty claims, the source of dissatisfaction should be acknowledged as a complex function of many variables and that is necessary to be aware of the fact that any part of the

consumption experience, post purchase process might lead to dissatisfaction and to complaining behavior.

With specific reference to complaints and warranty claims, Homburg and Fürst (2007) point to existing research that confirms the negative attitude of companies toward actively seeking feedback from dissatisfied customers and the negative or passive behavior (especially of the employees) when being confronted with these types of customer feedback. If the content of a claim or complaint could lead to perceived unfavorable consequences (such as punishments or negative behavior toward them by managers), the needed transmission of feedback to the managers in a complete and accurate way may not take place. However, such a defensive behavior strengthens company's "inability to promote active unlearning (i.e., discarding previously beneficial, but now dysfunctional organizational knowledge and practices)" (p. 527) and inhibits active learning.

2.2 Feedback and knowledge management

Feedback has its theoretical roots in mechanical engineering, electronics, cybernetics, biology with further development and interest in communication, psychology and health care, education and human resource management (Goode, 2000; Van den Ridder et al., 2008; Boud and Molloy, 2013). In business or entrepreneurship however, theoretical ground for feedback is scarce (Crommelinck and Anseel, 2013).

Mulder and Ellinger (2013) summarize some effects of feedback: feedback may have a positive effect on the competitiveness, organizational effectiveness, and on various behavioral aspects of employees (improvements in work performance, commitment to the organization, job motivation and creativity). Both authors also discuss different definitions of feedback (mostly from the human resources development point of view. Feedback thus can be understood as (citing Ilgen et al., 1979) "a special case of the general communications process in which some sender conveys a message to a recipient" (p. 6) or (citing Ashford and Cummings, 1983) as "a subset of information available to individuals in their work environment. Feedback is that information that denotes how well individuals are meeting various goals" (p. 372) or (citing Hattie and Timperley, 2007) as "a consequence of performance" (p. 7). Feedback can also develop a sense of competence (Shute, 2008). Ramaprasad (1983, p. 4) also defines feedback as performance related: "Feedback is information about the gap between the actual level and the reference level of a system parameter which is used to alter the gap in some way." Nevertheless Goode (2000), citing Balcazar et al. (1985) emphasizes that "feedback does not uniformly improve performance." (p. 238) because feedback processes are rather complex and not linear. Working with feedback (feedback management) requires one to understand the power or benefits and features and principles of feedback, and to accept it, adapt for the specific environment and promote work with it. This is so called feedback seeking behavior (Mulder and Ellinger, 2013. Particularly, in an organizational context, feedback must be comprehended as an aspect of interpersonal relations, even in the case of material product returns and feedback from them (Goode, 2000).

Three elements may be found in almost any type of feedback: source, message and recipient (Goode, 2000). One feature of a source is general for all types – source should be credible. In interpersonal feedback, credibility is usually based on qualification, status, power – both formal and informal – and charisma. Some level of empathy is also a characteristic feature of a source. This is extremely important for working with feedback when managing people in organization, but somewhat less in customer feedback as the legitimacy of power may replace empathy. The second element is the message which is characterized by goal orientation, specificity, timeliness and in interpersonal relations it is suggested to be nonjudgmental and containing some praise. Message of product returns should be approached both through the eyes of the source (customer) and especially through the eyes of the third element in the feedback process – recipients (front-line

employees) – their understanding, values and needs. If not captured by the recipient, potentially rich content of message can be lost. For the recipient personality and behavioral characteristics and knowledge and experience as well as empathy are features which shapes the cognitive, affective and motivational and behavioral reactions to feedback within feedback process (Mulder and Ellinger, 2013).

2.2.1 Feedback, learning and knowledge management. Learning aspect of feedback can be found in one of the oldest definition from cybernetics. Wiener (1954, p. 71) highlights this as follows: "Feedback is the control of a system by reinserting into the system the results of its performance. If these results are merely used as numerical data for criticism of the system and its regulation, we have the simple feedback of the control engineer. If, however, the information which proceeds backwards from the performance is able to change the general method and pattern of the performance, we have a process which may very well be called learning." So, feedback, if processed mentally as the information, should ends in acting (or reacting) (Boud and Molloy, 2013). "Acting" is related to the process of constructing new knowledge rather than acquiring knowledge, so feedback than can be seen either as a behaviorist response or a constructivist response or both in one (Roos, 2004).

Feedback is different from information and from knowledge (Boud and Molloy, 2013) due to the cyclical character inherent in the effect which feedback has, in the feedback loop. The feedback loop may take the form of a simple loop that is associated with a comparison of the desired state and the actual state and leads to corrective actions. However, the so-called double loop (Argyris, 2002), which goes beyond existing thinking and decision-making boundaries and is therefore more associated with knowledge management, is important for continuous improvement and thus for innovation in enterprises. Product returns not only mean that something is wrong, they should be an impulse to find answers to questions of, why, how, where and when and how use them as opportunities and resources for value creation and, among other things, for innovation.

Double feedback loop learning requires changes in organizational culture; open channels of communication within the organization; motivation and stimulation of actors to capture and share insights; information and tacit knowledge; and matching learner's goals and expectations so the goals can be met (Shute, 2008; Chirumalla, 2017).

In some broader conception of knowledge management, feedback loop (double loop) from product returns across the whole organization and also from outside its boundaries has to emerge from the subprocesses of the SECI model: the socialization stage (sharing of ideas, experience, technical skills, images to turn tacit knowledge into the other type of this knowledge); externalization (turning tacit knowledge into the explicit through the articulation and provision of some understandable format, so knowledge is described, expressed and explained, simply captured); combination (mixing or completing "pieces" of explicit knowledge into the more complex set through systemization, codification, communication, diffusion and integration processes with the support of less or more formal information and communication infrastructure and technology); and internalization of new explicit knowledge (turning explicit knowledge into the tacit as usual practice) (Diakoulakis *et al.*, 2004).

3. Methods

SSM was chosen for the problematic situation of one small Czech printing company with a somewhat turbulent life cycle that was established in the late 1990s turbulent life cycle. From 2013 several new competitors started to enter the market (both local, direct competitors and regional and national competitors with a more diverse offer and more modern technology which requires considerable investment). Although the company made profit, in 2016 the management reported very high loss. Cumulation of several reasons affected this bad situation. Company lost several very good customers (who had been loyal

for more than a decade), two other big customers went bankrupt (with no possibility to get money from them for the deliveries) and sales representative was not able to find new customers who could place a similar size of orders. Costs for waste have began grow and managers started to perceive that more and more customers were complaining about the quality of the printed products.

This was the initial situation in summer of 2016 when the owner and managers agreed to look into the problematic situation with the involvement of an external actor (author of this article). At that time the company was managed by owner (but not full time) and four managers and it employed six other employees. One manager was responsible for sales (and to a lesser extent also for marketing and working as sales representative). Two managers were responsible for technology, production, purchasing and provided advices to customers with some certain requirements. One manager was responsible for finance and accounting. Three of the other employees worked exclusively as printers, the other two – besides being involved in printing – participated in handling customers' orders and one took care of deliveries, the inventory and warehouse handling (participating in printing only when needed).

Managers are very good friends and used to spend a lot of time together also in their private life. The owner has also very good relationship with all managers and relies heavily on them.

SSM is a qualitative action research approach in which a researcher takes an active part in solving the problematic real world, complex and ill-structured situation of a social system (Checkland, 2010). Whole enquiry process is understood and realized as a learning system for all participants of action research (Winter, 2006). One main idea in this methodology is that organizations are dynamic, changing and open systems of purposeful activities carried out by actors to produce some output. Every system operates on behalf of an owner, but also on behalf of other relevant stakeholders with the power and legitimacy to affect the system in the external environment which is not under the control of the system (Liu *et al.*, 2012). Subjective and different perspectives of actors of the system(s) construct the social reality and the research is focused on understanding these perspectives and on the mutual reconstruction of the problematic situation of the system through conversations, reflection of ideas and actions (Gerwel Proches and Bodhanya, 2015). Reisman and Oral (2005) present ten questions which must be answered throughout the research and research should keep in mind during every stage of enquiry as they should guide the research. These questions are as follows (p. 171):

RQ1. What is the real problem?

RQ2. What goals or objectives are to be achieved given the conflicting perceptions about the problem situation?

RQ3. What are the constraints?

RQ4. Who are the players, the stakeholders?

RQ5. Who are the beneficiaries?

RQ6. Who are the regulators?

RQ7. What part of the world is involved? or What is the system?

RQ8. How does this system perform its functions?

RQ9. What are the system's subsystems?

RQ10. What are or what should be the criteria for evaluating system performance?.

This study presents research that was carried out in 2016 and 2017 and the author applied the "seven-stage model" from the older version of SSM in combination with some ideas and approaches from the later versions. This model has a narrower scope in comparison with the more developed approach from 90-ies, nevertheless its application is relatively simpler.

The author had had no previous experience applying SMM in real practice and in such situation this version is more appropriate, despite its potential to give a false impression of SSM as to be followed systematically as a prescriptive process (Checkland, 2000a).

All the recommended basic tools were used during the research, namely conceptualization, layered thinking and visualization (Checkland, 2000b). The seven recommended steps contain the following processes and broad open questions raised in the research presented in this article:

1. *Find out about the problematic situation* – unstructure the problematic situation (what the problems are perceived with product returns, their handling and management; how do they influence the existence of business, organization, members of the company and other relevant stakeholders; why have they occurred; who are the relevant stakeholders affected by product returns and returns management; what feedback does company use from product returns; what cultural issues can be connected to product returns and their management; what is the disposition of power within this situation; how do the participants perceive this disposition; what intervention can improve the situation).

2. *Express the problematic situation* – the so-called Rich Picture drawing as one possible output from this stage is helpful for further investigation. The aim of the Rich Picture is to capture "main entities, structures and viewpoints, the processes going on, the current recognized issues" etc. (Checkland and Poulter, 2006, p. 210). Several rich pictures were drawn and redrawn with the help of actors in three meetings until the final one was agreed as the right one for the problematic situation perceived by all.

3. *Formulate a root definition* with the help of mnemonic concept CATWOE (specific tool) – this Root Definition (RD) should express the essence of relevant system. Again, RD was formulated and reformulated based on the findings of three meetings and several on-sites visits to the company and some individual interviews with employees and was agreed upon agreement by all actors.

4. *Build a conceptual model* – during this stage, the choice of linked purposeful activities relevant for the system and in harmony with Root Definition was made based on discussions during meetings and interviews. The model is expressed as an activity model which reflects the shared worldview of participants and a visualization of the needed changes.

5. *Compare the conceptual model with the real world (system)* – the conceptual model was used to discover gaps between problems and the improved state within problematic situation and – figuratively speaking – to create bridges to cross those gaps. Again, discussion, brainstorming, drawing and playing games were used during this stage.

6. *Suggest and discuss possible actions and changes* – what, who, how, when and why, what not, who what not and why not was discussed very intensively during whole-team meetings, corrected (slightly) *n* individual discussions and presented once more time for the final approval.

7. *Implement suggestions to improve the situation* – the output of this stage is commented in Discussion and Conclusions of this paper. Pictures, memos, notice boards, photos and manuals were developed (and also co-designed and printed in cooperation with the team) to make the implementation of suggestions smoother and easier.

During the enquiry other methods were applied by the author (multimethodology is widely accepted, see, for instance Mingers and Brocklesby, 1997). Namely the Gaps model of service quality (Parasuraman *et al.*, 1985) was used to reveal how requirements of customers are processed to the final product and to the product returns handling, the

Fishbone diagram (Ishikawa, 1990) to help structure areas of the problematic situation and to study root cause of the situation; and to limited extent PESTLE, Porter's Five forces and stakeholders analysis to understand dynamicity and influences from the external environment (Johnson *et al.*, 2009). To get acknowledged with the real situation of the business, the author analyzed various documents related to the warranty claims and complaints, to the financial situation and to some operations the company has formalized in the form of some documents in the past as the part of ISO 9001 certification (which is not valid anymore).

As was previously mentioned, several meetings (with groups of actors and with all actors together), individual interviews were conducted with all employees and the owner, with three customers (2 business, 1 final consumer) and with one supplier. These all took place in a period of around seven months period (June 2016-January 2017). No important information was found with regard to business customers, so they are not reported in this article. Research had a strongly iterative and cyclical character (Checkland, 2000a) with rapidly growing involvement of participants.

4. Soft systems methodology findings

This article does not contain all outputs from the research due to the limited space. It only presents a summary of the main findings and suggestions and discusses them further.

4.1 Problematic situation

Product returns management in the analyzed company reflects existing problems and barriers provided by the literature. Despite the size of the company and a relative simplicity of production processes which does not require high level of specialization among the employees the core of the problematic situation lies in the following areas:

■ Lack of knowledge and understanding of the potential of product returns both for the customer relationships maintenance, the impact on profits and the value recovery among managers and employees. Nobody from all actors in the research has every thought about any possibility to turn waste from production and product returns into something valuable. Only very few ideas were articulated what all to analyze in the case of product returns and production waste. People believe nothing can be done with product returns – they have no value, only costs of disposal except very small amount of money for paper waste. Customers are considered as those who want too much for nothing and not as those who enable the existence of the company.

■ Communication barriers which are the consequence of perceived power distance and the perception of the individual expertise between people in company and towards customers and suppliers. One customer believes that the reason of defects with the products she was complaining about several times in the past was due to the insufficient listening and understanding – once by a printer at the front desk and once by the production manager. Another important finding from the research is that the responsibility for problems with warranty claims, complaints, growth of waste and the subsequent problems is blamed on the other colleagues, however, not individually but according to the job position they have. Two production managers believe that reason for product returns and waste from production lies in customers' incompetence to express what they want and inability to deliver documents and inputs in the required quality. They also very negatively evaluate suppliers for decreasing quality of materials, nevertheless they are not involved in purchasing and negotiation with the suppliers.

Communication barriers are connected with other areas, especially with the climate and "lock-in" effect in the company.

- ■ Organizational climate which has a rather defensive character and which is focused more on the day-to day operations than on a strategic long-term perspective of doing the business with no real quality improvement and a learning culture. There are no initiatives from management to discuss some creative ideas for any improvements. If employees express some idea, it is not accepted. Employees usually do not know when they will have much to do and when there will be almost no orders. The owner of the company, who only takes care of the very loyal and big customers, tries to push their orders in expense of the other orders waiting to be printed although he is aware of the very high demand fluctuation and time press for production. Studied situation negatively influence the occurrence of product returns as well as the lack of willingness and the inability to solve them and to capture the value.

- ■ Missing business wide practices to overcome the cross-functional character of product returns management. Two employees supported this finding with the ideas that: first, all product returns emerge because scheduling of work tasks is very poor together with flow of materials needed for production; and second, that work of sales manager with the work of production manages is not in balance. It was also revealed that production managers do not like to solve problems with dissatisfied customers, and they try to avoid such situation. People in the company do not understand and they are even not interested in the value-added processes which their colleagues do.

- ■ Insufficient attention paid to product returns, among all also due to the nonexistence of the adequate information system, very simple documentation of warranty claims and complaints and a lacking performance measurement and management of product returns. For instance, a production scheduling is done "orally" based on the information from the sales manager. No analyses and no calculations are used for the product returns and waste except the evidence of payment for the waste disposal. There is also no evidence of complaints and claims kept in the company after they are solved.

- ■ Managers "locked in" their internal environment without needed reactions to the changes and trends. Several examples can support this fact. Managers of the company do not understand changing and growing bargaining power of customers which originates from the offer of the competitors and shifts of customer behavior, their needs and wants in terms of delivery speed and quality requirements. On the contrary, the financial manager believes that products return because production managers and both employees who take orders are not competent to understand what customers really want. Different view is given by one woman who works in printing. She thinks that the reason for growing amount of complaints and product returns is in a very low cooperation between people in company and because printers do not understand what production managers say and production managers do not want to listen to the printers.

Managers also do not understand the interconnection of different costs related to production, waste and customer recovery. "Locking in" concerns not only the company internal environment but also the individual personal world, especially of managers who have been in the business and hold their functions since the foundation of company. During the meetings and individual interviews quite often words "we" and "they" were pronounced (managers vs employees, managers vs managers, employees vs employees) but no real hate was seen.

If we summarize the problematic situation, there were no pieces of evidence that product returns in company could be understood as the feedback bearers to the value chain processes and activities. There was also no evidence of any knowledge management practices related to the product returns management although some signs of awareness of the potential positive role of warranty claims, complaints and waste for the learning effect existed.

4.2 Suggestions (conceptual model drawing is not presented here)

Suggestions were formulated based on accommodated agreements, on the mutually agreed degree of necessity and the degree of feasibility. The language used in this article is more formal than it was in reality.

■ *Sales manager and front-line printers* – start keeping formal records about product returns in a simple manner – the things customers complain about – and share this information with production managers.

■ *Production managers* – start doing simple analysis of the reasons of product returns and communicate results to all employees (together with managers); continue with a Pareto analysis (which was shown during one meeting) if needed.

■ *Sales manager* – initiate the collection of innovative ideas on product returns and production waste from all employees related to product returns and production waste – (Box of ideas) – and organize weekly short meetings (more informal) to inform, discuss and promote creativity; together with production managers move ideas to the evaluation stage and further.

■ *Financial manager* – start keeping records and doing calculations regarding the cost of product return in a simple manner.

■ *All managers (together with the owner)* – start asking employees "Who would like to. . .? to let them do also other work tasks if interested.

■ *All managers and volunteers* – start communicating "we" and "our company" gently . . .. continue with "our customers", "our suppliers", "our community"

■ *All employees (together with managers)* – start thinking about how product returns and waste can be used by suppliers, other customers, community [. . .] The sales manager should add this theme to the collection of innovative ideas.

■ *Production managers* – start repeating the exercises about production scheduling. . .. start talking to employees about their time constraints and willingness to work over time.

■ *All managers* – start to "touch" the work of printers and front-line printers.

5. Limitations, discussion and implications

A single case study presented here has limited generalisability due to the fact that every application of SSM helps to uncover rather unique and individual situation and there could still be problem of generalisability even if multiple case studies were be done. A common limitation of the research is specific size and industry of the investigated company. Another limitation was the level of experience of the researcher, which may sometimes lead to a misunderstanding of the principles of the methodology, improper application and insufficient work with the individual findings and outcomes of the research. At the beginning, a rather big obstacle resided in attitudes, distrust and unwillingness of participants, specifically of employees who were not in managerial positions. Humor, fun, games, empathy, patience, openness, continuous explanation and reassurance, searching for ways how to involve everybody and for opening people up were very important parts of the enquiry. The length of period was both a limitation and a benefit for the research. Sometimes longer breaks between the meetings were needed (because of working regime of both the author and participants), so every meeting was like beginning with a new situation. This also had a very cyclical character. Nevertheless, the time in between was useful for thinking about all we had learned and for better understanding and for own conceptualization of the mutual goal.

The current situation in the company is relatively satisfactory. Author has followed (through the discussions with one manager) how suggestions and changes have been implemented

throughout the year and visited company in January 2018 to find out the ideas and feelings of other people. There have been both some small and big changes. Communication is now substantially more opened, and two groups of people do not now behave as being strictly separate. All printers have stayed with the company and a new one attracted by the current printer is now the member of the personnel. Employees appreciate their involvement in designing the products and in sales and marketing as well as involvement of all managers in handling warranty claims and complaints and in production. As they said, this helps them very much not to feel as if it is us and "them". They are also more willing to work extra if needed.

Waste from product returns (and also from production) has been substantially reduced and part of the waste is donated to local kindergartens, elementary schools and hobby communities with some reciprocity to company. Part of the product returns is reused and part is resold. Two new big customers (and some small ones) are very profitable and there is also more intensive cooperation on product design with them (and other customers). There are still some problems with the externalization and combination of knowledge. A lot of knowledge coming from the discussions with customer stays tacit and is not shared properly with the others and even not stored in a documented form. People rely too much on their memory and power of socialization and they still believe that it is too time-consuming and too uncomfortable to document feedback from customer or directly from product returns and analyze them from various perspectives. They are also reluctant to make comparison between specific requirements of customer and the product returns to find gaps and learn from them. But they are at least aware of some potential problems. This could serve as an example of the positive effect of a self-feedback.

Despite the problem generalizing the findings, some best practices of how to apply knowledge management into the customer product returns managing practices, and how to understand and grasp customer product returns as a source of feedback to learn and to improve the performace, can be summarized. First, customer product returns must be understood as the results of resources (also of knowledge resources) spent with a view to achieving profit, but which is either not profitable at all or leads to lower-than expected profits. In such a situation, the primary task for management is to address this and start to search for the solutions, which in general means to ask why the returns occur, what are the processes enabling their existence and ,,who can do what "to reduce them or to avoid them. As a complete avoidance of customer product returns is unlikely, the second area of concern is how capture some value from these returns. Third, as mentioned in the Theoretical review, the SECI model of knowledge management processes and practices should be applied for managing customer product returns. Sharing experiences from dealing with customer, individual perceptions and ideas of why customers complain about and mixing these ideas with some expertise and individual knowledge of other colleagues should lead to a common mutual understanding of the problem. An open and innovative atmosphere together with a comprehension of product returns as a source for improvement helps with the externalization and combination of knowledge. Development of the databases and documents or of at least simple information system will enable a company to keep the records for the performance analyses, and for the elimination of mistakes, problems or constraints in forward value-added processes. Finally, new knowledge internalization, supported and promoted through conscious management practices, opens a space for the other feedback streams from customer product returns and enhances deeper commitment both to customers satisfaction, to the performance improvement and potentially also to the individual personal job satisfaction.

6. Conclusion

Feedback in general can reinforce good practices, helps to reconstruct knowledge, lead to corrective actions of poor performance and may help to identify paths for improvements as

well as raise motivation for continuous learning (Cantillon and Sargeant, 2008). Feedback from product returns is not so easy to manage because they may stay silent, without demanding "their rights". Theoretical knowledge about feedback practices should be adapted for this purpose towards a more technical analysis and more mental processes with the question behind what they would say if they could.

This study reacts to the call of Chen *et al.* (2017) demanding more empirical research on returns management from a managerial perspective and is one that offers some new insights into the soft social aspects of product returns management. From the findings of the study it is clear that product returns form not only part of the industrial but also of the social ecosystem.

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About the author

Alena Klapalová is an Associate Professor in Operational Management and Quality Management, Logistics and Supply Chain Management and International Marketing at Faculty of Economics and Administration, Masaryk University, Brno, Czech Republic. Her research focuses on the reverse logistics, green supply chain management, customer relationship management, quality, innovation and knowledge management and international marketing and management. Alena Klapalová can be contacted at: klapalov@econ.muni.cz

www.manaraa.com