

Managing asymmetrical supply chain relationships: psychological ownership and commitment in the agri-food sector

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Abstract

Purpose – In this paper, the authors integrate the psychological ownership theory with the concept of commitment to contribute to the discussion on agricultural supply chain management. The purpose of this study is to examine how farmers experience their commitment to the business relationship with the processor and how this is conveyed through the routes of psychological ownership.

Design/methodology/approach – The empirical data are based on 14 in-depth face-to-face Finnish farmer interviews. To understand the farmers' routes to psychological ownership, the critical incidents technique was used.

Findings – According to the three routes to psychological ownership – control, profound knowledge and self-investment – the authors argue that farmers mainly consider their routes to be more or less blocked because of the asymmetrical power and information distribution in the business relationship with the processor. Furthermore, based on farmers' perceptions of psychological ownership, the authors provide a farmer typology that reflects in the farmers' willingness to commit to the business relationship. The identified types are named as satisfied, captives and leavers.

Originality/value – By integrating the theory of psychological ownership with the concept of commitment, this study provides a more robust understanding of how farmers experience their commitment to the business relationship, thus, contributing to the literature on supply chain management in the agri-food business context. Implementation of these findings can help business partners to proactively improve their business relationships through the perceived level of commitment and to deal with critical incidents influencing the effectiveness of the whole chain.

Keywords Agriculture, Asymmetry, Channel relationships, Commitment, Communication, Critical incident, Food chain, Food industry, Supply chain management, Typology

Paper type Research paper

1. Introduction

The contemporary agri-food sector is facing significant economic, social and ecological challenges that are reflected, for example, with increased vulnerability and uncertainty throughout food supply chains (Gonzalez, 2011; KPMG, 2013; Zhao *et al.*, 2017). It has been argued that collaboration within and beyond the supply chain members is needed to reduce uncertainty and increase efficiency and resilience in the chain (Fischer, 2013; Gao *et al.*, 2005; Nyaga *et al.*, 2010). Previous literature has demonstrated that commitment constitutes a significant and critical factor in ensuring effective collaboration (Fawcett *et al.*, 2021; Fawcett *et al.*, 2006; Kwon and Suh, 2004). Commitment in business relationships is often defined as “an exchange partner believing that ongoing relationship with another is so important as to warrant maximum efforts at maintaining it” (Morgan and Hunt, 1994). For example, Ramirez *et al.* (2020) claim that commitment is a prerequisite for close collaboration as it assures “both the appropriate level of involvement and obligation from the counterpart and the proper alignment of goals”. In the agri-food business context, the significance of commitment has been highlighted in various

previous studies (Fu *et al.*, 2017; Ramirez *et al.*, 2020; Mena *et al.*, 2013; Yang *et al.*, 2021). For example, in recent studies on the quinoa and vegetable supply chains, Ramirez *et al.* (2020) and Yang *et al.* (2021) identified commitment as an important enabler for supply chain integration in the agri-food sector.

In this study, we examine commitment between business partners in an agri-food business relationship through the theoretical discussion of psychological ownership. Similar to Pierce *et al.* (2001), we perceive ownership as a multidimensional

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phenomenon including both a formal (objective) and a psychologically experienced (subjective) aspect. Psychological ownership refers to the state in which individuals feel as though the target of ownership or a piece of that target is “theirs” (Mattila and Ikävalko, 2003; Pierce *et al.*, 2001, 2003). Thus, “the core of psychological ownership is the feeling of possessiveness and being psychologically tied to an object” (Pierce *et al.*, 2001). Previous studies have highlighted the link between psychological ownership and (affective) commitment (Liu *et al.*, 2012; Mayhew *et al.*, 2007; O’driscoll *et al.*, 2006). For example, Van Rijn *et al.* (2020), who studied workers at Fairtrade-certified banana plantations and connected the voice of workers to a sense of ownership and satisfaction, consider the feelings of ownership among workers an important factor in ensuring commitment and sustainability in the chain.

Despite the demonstrated link between psychological ownership and commitment, this relationship has rarely been addressed in the context of supply chains or, more particularly, in the context of agriculture, where power asymmetry and long-term contractual business relationships are common. We suggest that psychological ownership provides a fruitful theoretical tool to understand farmers’ behaviour as part of the supply chain and, accordingly, their experienced level of commitment in the business relationship. In this study, we focus on the relationship between farmers (producers) and the processors operating vertically as the next actor in the turkey meat chain in Finland. The objective is thus to find ways to better manage and implement commitment in agri-food business relationships by highlighting the important connection between psychological ownership and commitment. Accordingly, we ask: *How do farmers’ feelings of psychological ownership towards a business relationship with a processor reflect their perceived level of commitment in the business relationship?*

By interviewing farmers in the turkey meat chain, we first demonstrate farmers’ psychological ownership feelings towards the business relationship and, second, provide a qualitative typology of different farmers with respect to their commitment in the business relationship. Thus, our results contribute to the discussion on agricultural supply chain relationship management. By integrating the theory of psychological ownership with the concept of commitment in the agri-food business context, our study provides a more robust understanding of how farmers experience their commitment to the business relationship. Our study demonstrates that even though perceptions of asymmetry hinder the development of farmers’ ownership feelings towards their business relationships, sharing information and communication are significant means to enhance psychological ownership and, accordingly, commitment in agri-food business relationships.

The rest of the paper is structured as follows. Firstly, we link the theory of psychological ownership and the concept of commitment by examining the previous literature in Section 2. Secondly, we present the methodological approach and qualitative data analysis in Section 3. After this, in Section 4, we introduce the results of the research through the dialogue between the study findings and previous research. Finally, in Section 5, the findings are concluded with insights, possible implications in Section 6 and the limitations of the study in Section 7.

2. Theoretical framework – linking the theory of psychological ownership and commitment

In this study, we apply the ideas of psychological ownership to further study the nature of commitment. Psychological ownership reflects a relationship between an individual and an object in which the object is experienced as having a close connection with the self (Dittmar, 1992; Mattila and Ikävalko, 2003). According to Pierce *et al.* (2003), psychological ownership has both a cognitive and affective core as it reflects an individual’s awareness, thoughts and beliefs regarding the target of ownership while being coupled with emotions. Thus, psychological ownership consists of an emotional attachment to the target of the ownership that transcends the mere cognitive evaluation (Van Dyne and Pierce, 2004).

The theoretical discussion on psychological ownership stems from the studies of management and organisational behaviour. In the organisational context, psychological ownership is often examined as a psychologically experienced phenomenon in which an employee develops possessive feelings either for their specific job or the overall organisation (Van Dyne and Pierce, 2004; Mayhew *et al.*, 2007). In the past years, the interest towards psychological ownership has extended to other fields as the explanatory power of the concept has been recognised, for example, in the contexts of marketing (Asatryan and Oh, 2008; Peck and Shu, 2009) and natural resources (Lähdesmäki and Matilainen, 2014; Matilainen and Lähdesmäki, 2014). Psychological ownership has seldom been used to describe supply chain relations, but its importance has been recognised. For example, Fawcett *et al.* (2008) used the idea of psychological ownership to explain the territorial behaviour among supply chains, leading to the unwillingness of supply chain participants to share information with their partners. Accordingly, we extend the examination of psychological ownership to the supply chain, specifically in agri-food business relationships.

The experience of psychological ownership is argued to satisfy three underlying human motives (Pierce *et al.*, 2001, 2003). The first motive, having a sense of place, relates to the basic human need of belonging; the second motive, efficacy and effectance, relates to feelings of control; and the third motive stems from the expressions of self-identity as people use ownership for defining, expressing and maintaining their identities. Furthermore, Pierce *et al.* (2001, 2003) conceptualise three potentially interrelating routes or mechanisms that lead to psychological ownership, namely, *becoming intimately familiar with the target, controlling the target and investing self into the target*.

Becoming intimately familiar with the target requires information and association with the target of ownership (Pierce *et al.*, 2001). Consequently, it can be suggested that the more information there is over the object, the deeper the relationship is between the self and the object; hence, the stronger the feeling of ownership is towards it. The importance of information sharing for successful collaboration has also been well acknowledged in previous studies focusing on agri-food supply chains. For example, in their European-level study of agri-food business relationships, Fischer *et al.* (2008) found effective communication and information sharing to be the most important determinants for sustainable business

relationships. Still, it has been stated that the complex nature and heterogeneous structure of the industry challenge the information exchange between the business partners and, accordingly, hinder the supply chain collaboration (Matopoulos *et al.*, 2007).

Psychological ownership manifests in individuals' ability to control the target of ownership through decision-making (Hall, 2005). Pierce *et al.* (2003) have argued that the greater the amount of control a person can exercise over certain objects, the more they will be psychologically experienced as part of the self. In the agri-food supply chains, power – understood as the ability of a party to influence its partner's decision-making (Gaski, 1984) – has often been the focus of contemporary research (Glavee-Geo *et al.*, 2021; Hoejmose *et al.*, 2013). Indeed, the intense concentration of the industry and the resulting asymmetrical distribution of power is frequently seen as a main source of conflict within agri-food chains (Hingley, 2005). Still, it should be noticed that power, when well-managed, can enhance the competitiveness of a supply chain as a whole (Dania *et al.*, 2018).

Finally, Pierce *et al.* (2001, p. 302) argue, as Csikszentmihalyi and Rochberg-Halton (1981) previously, that “the investment of an individual's energy, time, effort, and attention into objects causes the self to become one with the object and to develop feelings of ownership toward that object”. The significance of such investments has been acknowledged in developing successful relationships in the context of agri-food supply chains (Lees and Nuthall, 2015; Nilsson, 2001). Similarly, Lu *et al.* (2010), while discussing the relationships between farmers, processors and retailers, highlight the importance of investing both tangible and intangible resources to build and maintain relationships with business partners.

Several positive outcomes have been associated with psychological ownership – one of them being commitment (Liu *et al.*, 2012; Mayhew *et al.*, 2007; O'driscoll *et al.*, 2006; Vandewalle *et al.*, 1995). Commitment is a multidimensional and continual process, which in the marketing and business literature has often been defined as an attachment between business parties that leads to a desire to maintain the business relationship (Gundlach *et al.*, 1995; Mohr *et al.*, 1996; Morgan and Hunt, 1994). It is argued to refer to the feelings of belonging (Achrol, 1997), social bonds between business partners (Berry, 1995), dedication (Bendapudi and Berry, 1997) and relational social norms (Gundlach *et al.*, 1995). Commitment is further associated with several positive outcomes, like a willingness to invest in material or immaterial resources (Kumar *et al.*, 1995) and enhanced mutual communication and satisfaction within the relationship (Caceres and Paparoidamis, 2007; Nyaga *et al.*, 2010). There is substantial agreement among researchers that the level of commitment to a business relationship is strongly related to its sustainability (Eksoz *et al.*, 2014; Gao *et al.*, 2005).

However, commitment can be seen also as a paradox or even a threat to autonomy in the business relationship (Stock *et al.*, 2014). Niska *et al.* (2012), for example, claim that farmers especially value maintaining their autonomy, and this reflects in their decisions. Nevertheless, Stock and Forney (2014) argue that farmers in contractual relationships see limitations in autonomy as a commitment and a way to create common good

rather than a form of submission. Paradoxically, constrained autonomy provides freedom by ensuring continuity in farming.

In the organisational context, commitment is often further conceptualised by dividing it into three distinct forms, namely, affective, continuance and normative commitment (Allen and Meyer, 1990). While affective commitment refers to an emotional attachment and involvement in the organisation, continuance commitment signifies partners' needs and desires to maintain in a business relationship because of high transaction costs or lack of other partners (*ibid.*). Accordingly, while affective commitment is often based on the internalisation of common values, continuance commitment can result from the lack of feasible alternatives (Rusu, 2013). Furthermore, normative commitment is based on the sense of moral duty (Allen and Meyer, 1990).

Psychological ownership is thus not synonymous with commitment, as the feeling of ownership for a business relationship is different from the desire, need or obligation to remain in that relationship (Van Dyne and Pierce, 2004). As psychological ownership represents a feeling of possession, it has usually been associated with affective commitment. Accordingly, it has been argued that while one of the motivations for the feelings of psychological ownership stems from the basic need for belonging and the sense of emotional attachment is important for affective organisational commitment, it is reasonable to suggest that psychological ownership influences the perceived feelings of commitment (Van Dyne and Pierce, 2004).

3. Methodological choices – building a qualitative typology

The study context, the Finnish turkey meat chain, is dominated by two major meat processing companies. Two meat processing companies jointly own the turkey slaughtering processor (hereafter referred as the processor), but they independently control their turkey brands and sell their products to the two major retail chains who dominate the Finnish retail sector. This processor manages and controls the whole production chain of turkey meat in Finland: parent stock poult and egg layers, hatchery, rearing facilities, slaughterhouse and cutting plant. The turkey farms, all family-owned, operate with similar production contracts, meaning that they work closely with the processor throughout the growing period of the birds and in all matters related to them. The processor also has an advisory board with two or three farmer representatives, although they do not have a veto right to the decisions. The processor is the only turkey slaughtering processor in Finland, and over 99% of all turkeys grown in Finland are under the contract production of this processor. Therefore, turkey farmers do not have considerable alternatives for turkey processing. In this study, we consider the farm as an independent entity having an interorganisational relationship with the processor.

At the time that the empirical data were collected, i.e. three years after the processing operations of two meat processors had been combined into one slaughtering processor and homogenous production contracts were put in operation, farmers and the processor had accomplished a long-term and binding business relationship. Farmers and the processor were

not, however, satisfied, and they looked for solutions to improve the relationship. At the same time, the sector suffered from low profitability. Farmers feared the cessation of the whole production. According to them, the long-term contract production did not necessarily act as a power equaliser or fear remover.

3.1 Data description

The empirical data of this study are based on 14 in-depth face-to-face farmer interviews. The interviewed farmers were selected from the processor's contract farmer register by using the purposeful sampling method (Patton, 2002). The processor did not influence the selection of interviewees. The processor did not know and was unable to deduce who was interviewed. All the identifying issues have been deleted from the results. Furthermore, the processor did not have any influence on the sampling methods, nor did they have access to the data. Because of the anonymity, the interviewees were able to speak openly. Accordingly, there were three criteria for the selection of the farmers. Firstly, all farmers represented the same production (breeding); secondly, they represented both of the two original meat companies, which had combined their turkey processing into one processing company a few years earlier; and thirdly, their feedlot sizes varied. The objective of using these three criteria was to gain informative and rich but still manageable data.

In the Finnish meat industry, turkey production is a minor production line with 45 farms operating as contract farmers and 39 of them breeding turkeys. These farms can be divided into two according to the contract of the original meat processing company. Company A has 18 farms, of which we interviewed six, and Company B has 21 farms, of which we interviewed eight. The number of interviewed farms (36%) can therefore be considered a representative sample – even though the qualitative approach we adopt does not aim to statistical generation.

The range of size of the contract farms was similar in both original processing companies, and the average and median feedlot size were about 10,500 turkeys. The most typical feedlot size was 12,000 turkeys (13 farms) and 6,000 turkeys (10 farms), respectively. Only four farms had more than 20,000 turkeys. To enhance the versatility of the data, we divided the turkey farms into three categories during the purposeful sampling process: small-, medium- and large-sized farms according to the size of the feedlot (Table 1). Approximately half of the interviewed farmers had other sources of income besides turkey production, like other (agri)businesses or they worked outside the farm. Still, the turkey business made up the majority of the farm turnover. The majority of interviewed farms were bigger than the average farms (annual turnover) in Finland, but they were still significantly smaller than the processor.

The interviews ranged from one to over 2 h in length and they took place at the homes of interviewees. All interviews were conducted in Finnish in the winter of 2011–2012. They were recorded and afterwards transcribed into full text. The interviews concentrated on issues around the critical incidents of business relationships. Accordingly, the interviewees were asked to name the significant critical incidents, whether positive or negative, in their turkey farming. The question was, “Using the timeline, briefly describe the most important events in your turkey production”. The unification of slaughtering was the only incident pointed out on the time axis by the researchers. Therefore, the critical incidents were brought up for discussion by the interviewees themselves – not by the interviewer. After this, each incident they identified was discussed more in detail as the interviewees were asked to describe underlying issues leading to the incident as well as the ways the incidents influenced their relationship with the processor and how the incidents were managed by the partners. The interviewees were given time to discuss their thoughts and feelings about the incidents, as well as their own and the actions of the processor. To avoid the risk that the interviewees responded narrowly by focusing on one or two specific incidents, interviewees were asked and encouraged to specify all significant incidents they could remember. By encouraging interviewees to discuss different examples, we were able to collect a richer dataset.

3.2 Data analysis

Our research is based on interpretative methodology. Accordingly, our study aims to understand how psychological ownership is perceived and manifested in the critical incidents demonstrated by the farmers in their relationship with the processor. Critical incidents technique (CIT) refers to interaction incidents that the farmers perceive or remember as exceptionally positive or negative and tell them as stories (Roos, 2002). It is a “qualitative interview procedure which facilitates the investigation of significant occurrences (events, incidents, processes or issues) identified by the respondents, the way they are managed, and the outcomes in terms of perceived effects” (Chell, 2004, p. 48; see also Flanagan, 1954) and, thus, interviewees' interpretations of the significances of events (Niska *et al.*, 2011; Tripp, 1994). The critical incident technique has a dual-purpose in this paper:

- to prompt interviewees to discuss their experiences; and
- to elicit different examples of management of the supply chain business relationship.

Based on the previous experiences of applying CIT in the context of ownership, it has been proven to be a suitable tool in empirical data gathering while focusing on behaviour through which ownership feelings are exhibited (Man and Farquharson, 2015).

Table 1 Description of interviews

Feedlot size	Total amount/share of farms	Interviewed farms
Small-sized: feedlot size 6,000 turkeys or less	13 (33 %)	4
Medium-sized: feedlot size more than 6,000 but less than 12,000 turkeys	10 (26 %)	3
Large-sized: feedlot size 12,000 turkeys or more	16 (41 %)	7
Total	39 (100 %)	14

We started the data analysis by reading through the transcribed interviews several times to form a comprehensive picture of the data and interviewees' critical incidents. The process continued with broad and systematic coding and grouping of incidents based on three routes to psychological ownership: control, intimate knowledge and self-investment. We re-read the extracts describing the routes to psychological ownership to identify, more specifically, congruencies and expressions and determine how psychological ownership was described in the critical incidents. Each interviewee raised several critical incidents, but all critical incidents did not entail references to psychological ownership nor were mentioned by all or the majority of the farmers. Our analysis found 10 incidents with identified ownership routes commonly shared by all or the majority of interviewees. The high number of the same incidents and the significance of communication and the prevailing lack of it were surprising results. These critical incidents are described in more detail in the results section.

After identifying the critical incidents and the routes to psychological ownership, we built a farmer typology based on how the description of the routes to psychological ownership were reflected in each interviewees' perception of the commitment to the business relationship with the processor. While building the typology, the elements within a type have to be as similar as possible (internal homogeneity), and the differences between the types (external heterogeneity) have to be as strong as possible (Stapley *et al.*, 2022). Accordingly, we identified three types that were named as follows: satisfied, captives and leavers. All types included three or more interviewees from both original processing companies. Our typology offers a classification where categories are discrete and independent of each other, i.e. an individual can only be assigned to one category (Spencer *et al.*, 2003).

Every phase of the analysis was first individually conducted by each author to search for characteristics and patterns in interview narratives. After this, the ideas and interpretations that emerged during the process were jointly discussed to reach a consensus. We achieved the full agreement after we compared and reconciled our assessments. Although rather laborious, this way of using analyses is often considered to increase the credibility of the research (Patton, 2002). Similarly, we use citations from the interviews in the main body of the text to make it easier for the reader to evaluate the interpretations we have made.

4. Results

In this section, we first describe farmers' routes to psychological ownership of the business relationship with the processor through the critical incidents of the turkey chain. It should be noted that the routes are partly overlapping and reinforce each other. Secondly, we introduce the three types found among farmers based on their commitment on the business relationship, namely, satisfied (S), captives (C) and leavers (L).

4.1 Control

In a business relationship, control can be understood as a process by which one business partner tries to influence the behaviour and output of the other (Ouchi, 1979). The interviewed farmers perceived that, in their relationship,

control was often gained by exercising power. As an example, most of the interviewees brought up incidents related to the overproduction of chicks and the timing of their deliveries. During the overproduction, some farmers refused to take in chicks because of the poor meat price. As a response to this refusal, the processor engaged new farmers outside the original contract farmers. Farmers claimed that the processor acted behind their backs and that they found out about the operation of the processor by accident. The processor had a legal right to take in new temporary farmers, but farmers saw it as a sign of betrayal. They felt anger and described it as outrageous behaviour against the original contract farmers. They would have expected an opportunity to negotiate and solve the problem together with the processor:

It's the processor who makes the decisions. If there is an empty birdhouse somewhere, they will use that. It's just business, and there isn't room for feelings. This is a means to make money. We are just small players here, but I still think that it [processor's decision to engage new farmers outside the chain] shouldn't have gone this way. I think that we still should have been able to negotiate it. (S3)

The overproduction repeated afterwards, and at the time, some farmers claimed they were pressured into taking in chicks earlier than agreed. Farmers stated they had to yield to the claims of the processor; therefore, they were forced to make changes, for example, to the timing of sowing, harvesting or their personal holidays. Thus, they felt they were unable to influence the key incidents of the production process and that the processor was not concerned about their expectations:

What bothers me most in this matter [the relationship with the processor] is that I don't have any control in it. They say to me when and how many chicks arrive, when they leave and when the next ones arrive, what they eat and how much. (C3)

Another example of a control that the farmers pointed out in the interviews was related to the feed contract: the processor and representatives of farmers negotiated an allied feed contract with one feed manufacturer, and all farmers were forced to join. For turkey farmers, feed is the most important variable cost in their production. Therefore, farmers saw feed as a significant means to influence their own profits. Some, for example, made their own feed tests and experiments to improve their breeding results, and some claimed to lose their negotiation power when purchasing other agricultural inputs, such as seeds, from the feed manufacturer. Farmers claimed that because of the allied feed contract, the processor figured out the price and amount of feed used at each farm and therefore was also able to count farmers' profit margins better and use this critical information in the price negotiations against farmers in their business relationship. However, some farmers gave positive recognition to the feed contract because of time savings. Generally, the feed contract was still seen as a means to decrease the control of farmers and to increase the power of the feed manufacturer and the processor:

Frankly speaking, things were better years ago when we were still able to influence these things [feed purchase] ourselves. Back then, there was nobody else to blame but yourself if you made bad business decisions. It was your own fault. But nowadays, I can't anymore [...] I can't make the decision since the others have taken control over the feed purchase. (C4)

The interviewees described an incident where they perceived that they were able to control the decisions made in the relationship. This incident was related to the grounds for the disqualification of meat. During the slaughter process, the quality of the meat is evaluated based on predetermined

criteria, and the farmers get a lower price on meat that is ranked as second class. When the criteria for this evaluation were changed, the interviewees perceived that the information about the new, stricter justifications for meat disqualification was revealed unexpectedly and accidentally to the farmers, as farmer C2 describes: *I asked all the other farmers and members of the advisory board whether others have different impression and everyone has the same [wrong] impression. Well, it made a fuss. That is, when such things pop up, trust “grows” every day [states ironically].* They used the term “get caught” when describing the behaviour of the processor in this incident. Furthermore, the grounds for disqualification were considered unclear. Farmers were confused by the processor’s argumentation and thought that they did not get enough information or information was concealed. Because of the absence of information, farmers even suspected that the meat ranked as a second class still ended up first class, and the new grounds for disqualification were just a means to cut farmers’ profits. Finally, the farmers used their collective power to negotiate directly with the owners of the processor, and the grounds for the disqualification of meat were altered.

It should be noted that although the farmers did not accept how the processor managed the incidents nor the omission of information, some stated that they understood the behaviour of the processor. Furthermore, a few farmers appreciated the effectiveness given by the allied feed contract.

4.2 Self-investment

According to the theory of psychological ownership, the investments of individuals into the target of ownership may generate feelings of ownership. In the business relationship between farmers and the processor, farmers thought that there was a wide range of investments they have made to enhance the turkey chain and, herewith, the business relationship with the processor. The investments were typically related to sale promotions, experiments and stimulus or improvements to animal welfare. Some farmers also saw the national decisions, such as salmonella-free and beak-trimming-free production, as investments for the whole chain because they cause extra work, which is not demanded from imported turkey meat:

[...] it has been decided that beaks are not trimmed in Finland, it is clear. They are not trimmed. But we don’t get any added value from it. Likewise, Finland is indeed a salmonella-free country, but we don’t get a much of added value from it. (L3)

However, many farmers were disappointed in the investments they had made because they did not feel like they got any credits, interests or support in this relationship but that their investments were taken for granted. Furthermore, they thought that the processor demanded too many sacrifices during the time of profitability problems, which decreased farmers’ motivation to put any further energy and resources into the development of the relationship. Some farmers, however, were ready to continue and make further investments, such as expanding or developing their breeding production to enhance their own business, but not necessarily the effectiveness of the relationship or the whole chain.

4.3 Profound knowledge

It has been argued that people can feel that something is theirs through the association of the target of the ownership and being

familiar with it (Pierce *et al.*, 2001). More specifically, “through association we acquire information about the object and come to know it intimately” (Pierce *et al.*, 2001, p. 301). According to the interviewees, a new turkey breed came to breeding without preconceived information for farmers or negotiations between the processor and farmers. Farmers felt confused because they suddenly lost profound knowledge concerning the breeding they had acquired during the previous breed. They felt they had to make changes to the breeding methods by themselves. In other words, the farmers were obligated to make investments, for example, time and experiments, to get as good of results as earlier. Farmers commonly claimed that their profitability decreased, and farmers alone carried the potential risks included in the change of breed. Thus, the processor’s failure to share information was considered to lead to the farmers’ inability to build their knowledge concerning turkey growing:

Then there was an incident related to the change of the breed, which we didn’t know anything about. We just wondered why the animals are like this and then they mentioned that ‘by the way, the breed has changed’. I said, isn’t it something we should discuss together that we would also be aware that the breed is changing. But no, they remain silent, and when we noticed it, the change had already been made. (C2)

The significance of sharing profound information and building knowledge were related to several critical incidents described by all interviewees and, further, were considered as the important elements of a successful business relationship. All farmers had several complaints about information sharing and communication with the processor. The received information was not regarded as adequate, open or trustful. Furthermore, it was considered that the partners did not have reciprocal communication: farmers felt obligated to inform the processor about everything but felt the processor was holding back critical information. For example, when farmers faced problems in the quality of the chicks and lost a significant number of chicks, they approached the processor, but then they felt abandoned without information, understanding and compensation – even though the processor did research and developed the quality. Furthermore, the quality problems caused feelings of guilt, as the problems were perceived as professional failures.

Nearly all interviewees associated communication with trust in the relationship: the lack and distortion of information were not only signs of poor relationship management but also mistrust. In the farmers’ narratives, lack of information, such as missing annual statistical reports, was constructed as an empty hole, which was filled with rumours, interpretations, suppositions and farmer-to-farmer communication. On the other hand, self-evident facts provided in the newsletters were seen as annoying and were sometimes even regarded as leading to feeling like a fool or belittled. Interestingly, the methods of information sharing were not seen as important, although personal contacts and visits on farms were appreciated, whereas emails were seen more as a sign of a faceless management style:

I often must call other farmers to get a piece of information here and there. Like the quality of the chicks, it’s something we have speculated now among the farmers. [...] So communication and information sharing should be more open. There is somehow [...] at least I have the feeling that some information is being hidden from us. Like they are not telling us everything but hiding some information for some reason. We must be open in that direction and inform them about everything and in every way, but from their part it’s allowed to, I don’t know if it is dishonesty or not, but to leave something unsaid. (L3)

4.4 The typology of farmers' commitment on the business relationship

Our analysis demonstrates that there is variation between farmers in the ways the routes to psychological ownership are perceived. Thus, during the analysis, we noticed that even though interviewees expressed strong feelings and opinions such as dissatisfaction, disappointment and a willingness to quit, there were also expressions of understanding and a willingness to develop the relationship. Accordingly, we constructed a typology of farmers (Figure 1) based on how their perceptions of psychological ownership are reflected in their willingness to commit and stay in the relationship. While analysing the background information of the farmers, that is:

- the size of feedlot;
- pluriactivity; or
- outside incomes did not affect which category the farmer belonged to.

4.4.1 Satisfied

Even though the farmers expressed negative feelings towards the processor's exercise of control in the relationship, the satisfied farmers still understood the processor as being "between a rock and a hard place" and "making profits". Farmer S1 summarised the feelings concerning the business relationship by stating:

"We are just a supplier to the processor, we are not the owners or anything like that. They don't have to tell us anything if they don't want to. It's a business that must operate properly".

Thus, while describing themselves as a business-oriented partner, the satisfied farmers understood that, due to economic rationalities, the processor was sometimes required to make difficult business decisions. Similarly, the satisfied farmers did not feel that they lacked all control in business relations. Instead, they acknowledged that the amount of control they have in the relationship is dependent on their own activeness.

The satisfied farmers further stated that they themselves are obligated to bear the (economic) risk in the relationship and invest in the relationship. Being active and self-imposed business partners was emphasised in the examples of mutual communication with the processor. Although the satisfied farmers were not totally content with the amount and quality of information, they were able to achieve consensus through mutual communication and they mainly trusted the information obtained. For example, Farmer S6 expressed his satisfaction with the communication by stating:

"At least I have been able to find a consensus for everything through discussions. I don't recall any incident where we wouldn't have been able to reach mutual understanding. Even with the case when many chicks died, even then the processor took care of everything as agreed".

The satisfied farmers considered themselves to be voluntarily committed to the relationship. Their commitment was not affective but rather a rational commitment of a contract farmer. Even though they were pleased with the level of the processor's commitment, they did not expect or demand any changes concerning it. Instead, they were rather settled with the situation:

I haven't been forced into anything, and there hasn't been any misuse of power against anybody. I think that everybody has behaved well, we have all taken some risks and we have all tried to benefit from this relationship. Things have gone for the better, and I guess that we have benefited economically, too. I don't feel that we are forced to do anything; everybody could well leave if they wanted; it's not compulsory to continue. (S2)

4.4.2 Captives

The captives expressed strong feelings of being betrayed and disappointed in the business relationship with the processor and having mistrust. They talked considerably about how the critical incidents were handled negatively by the processor. When describing their feelings concerning the business relationship, they used expressions like "rejection", "guilty", "inferiority", "intimidation", "mistrust" and "sacrifice". The captives felt like they did not have enough control to influence the business relationship, which evoked significant feelings of frustration. This is exemplified in the narrative of Farmer C3 who described the incident with new farmers and feelings of powerlessness as follows:

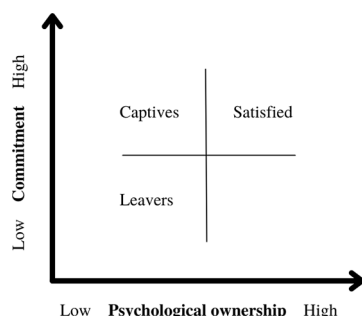
"I was really angry. I think it was so outrageous that I couldn't believe that they would do that to us farmers. Why be a contract farmer if the other party does whatever they want to? I still get very upset when recalling it. I can't understand it".

The captives described that they were forced to search for information by themselves, and they did not trust the information shared by the processor. This was seen in the expressions such as "hidden", "insufficient", "irrelevant" and "unreliable". Additionally, they strongly criticised the processor because they had made several self-investments, such as experiments, development actions and marketing promotions, and, without a perception of acknowledgement or respect, they felt betrayed and abused in the relationship. Thus, several captives acknowledged that they were not motivated to make investments in the relationship anymore. They expected more reciprocity from the processor contributing to the relationship and the whole chain, as farmer C1 pointed out: "There is a need for others to start making sacrifices for the chain, not just the farmers".

The captives felt like they were insignificant partners in an unsatisfying business relationship. Thus, their commitment was based on continuance: they seemed to hang on to the relationship because they did not have any alternatives for the relationship or resources to change the production line. The captives were more than unsatisfied with the commitment of the processor, but they were not ready or able to leave:

Well, I'm not happy because we're talking about a business relationship, and this is far from business now. I'm just trying to hang on somehow and stay alive, so to speak. This isn't like any business [...] this is a pretty bad business relationship. (C4)

Figure 1 The typology of farmers



4.4.3 Leavers

Similar to captives, leavers did not have strong trust in the processor and felt disappointed in the business relationship. They talked considerably about the critical incidents as the processor's marks of poor management and used expressions like "force" and "threaten". Leavers did not consider the relationship as a typical and desirable business relationship, although they considered themselves as an "equal partner". They did not feel like they had control to influence enough, and therefore, they were able and willing to use their power as leverage, for example, in refusing to take chicks. Leavers were typically very business oriented. Although they were disappointed with the relationship, they seemed to understand the decisions and actions from the financial point of view. Accordingly, their criticism was usually based on economic arguments, exemplified by Farmer L1:

"If this was some other industry, people would have abandoned it already a long time ago because of profitability problems. But some farmers are so incapable that they don't have the guts to make any decisions. They just continue to do the same things and believe in the promises. But then there is a part that doesn't".

Leavers used the same expressions as captives when talking about communication and information sharing, but they also admitted they were not very active communicators by themselves either. They considered themselves a "long-suffering partner" but also skilled and able to breed turkeys: they had gathered profound knowledge "by themselves", they trusted their own capabilities and they had many development ideas, for example, for marketing and breeding, but they also conveyed, that "the lack of shared information eats motivation". Leavers were proud of their capabilities, they positioned themselves with high competence among turkey farmers and they trusted that they were able to use their profound capabilities in other businesses as well. They sought unique solutions for problems, mainly profitability problems, by themselves, and they were willing to take action into their own hands.

All leavers had made considerable plans for leaving the turkey chain. Accordingly, they were not as committed to the relationship as the other two types, they regretted getting involved in the turkey business and they did not believe in the continuance of the chain. Since they saw options for their business operations and were willing to start over in some other line of business, they were most likely to leave the turkey business if the financial situation was no longer satisfying. Since the leavers' farms were pluriactive or agriculturally diversified, they were not quitting farming *per se*:

I think that the power is no longer with the processor only since the farmers have so many other options. The situation has changed in a few years because those who have barns and want to be farmers can choose what to grow. At least in our neighbourhood, there are plenty of different options. (L2)

5. Discussion and conclusions

In this study, we integrate the theory of psychological ownership with the concept of commitment in the agri-food business context to provide a more robust understanding of how farmers experience their commitment to the business relationship and how this is conveyed through the routes of psychological ownership. We approach farmers' psychological ownership of their business relationship with the processor

through the critical incident method. Our experience from this study confirms the strength of the method in examining the routes to psychological ownership as it allows farmers to reflectively evaluate significant events and express their feelings towards the actions of the processor in their relationship. The critical incident method allows us to examine and understand the routes to psychological ownership in the farmers' own words without forcing them to address topics or issues that we expected they would think were important in creating ownership feelings. Accordingly, we suggest that the critical incidents are the situations where the routes to psychological ownership, namely, control, profound knowledge and self-investment, are the most explicitly formed and maintained. Thus, the critical incidents reveal whether a supply chain partners' needs and capabilities are understood and appreciated, which is considered a requirement for true collaborative supplier partnering (Poirier and Houser, 1993).

Based on the analysis of the routes to psychological ownership, we argue that farmers mainly consider their routes to psychological ownership to be more or less blocked because of the asymmetrical power distribution and lack of communication in the business relationship with the processor. Asymmetry, defined as the ability of one party to dominate and exercise power over the conclusion of contracts and, thereby, determine relationship processes and outcomes (Gundlach *et al.*, 1995; Buchanan, 1992), was perceived as a common and determining feature in the farmers' relationship with the processor (Nilsson, 2001). While the loss of farmers' market power and the resulting power imbalance with their vertical business partners is a broadly acknowledged tendency in the agri-food business context (Schulze *et al.*, 2006; Glavee-Geo *et al.*, 2021), our study demonstrates the significance of farmers' perceptions of asymmetry for the development of psychological ownership feelings. Thus, while being the more powerful actor in the relationship, the processor was considered to limit the amount of control the farmers have over the business relationship. Because the sense of control, more specifically "being the cause through one's control", is an underlying motive in possession (Pierce *et al.*, 2001), we suggest that asymmetry is a major challenge for the development of farmers' ownership feelings towards the business relationships of the agri-food chain.

Our study further demonstrates that the perceived lack of control in the business relationship is strongly intertwined with a perceived lack of information and weak communication, in other words, asymmetry of information (Nilsson, 2001). The results show how farmers reflected trust and satisfaction in the business relationship through communication, as a lack of it caused significant frustration and anger. The processor failed to understand how important communication and the key information sources, such as statistical reports, were for farmers, which further enhanced farmers' sense of asymmetry and mistrust in the relationship and hindered the development of ownership feelings. More specifically, if the information about the relationship is not shared by the processor or the information is considered insignificant or false, farmers' feelings of ownership towards the relationship are not necessarily able to develop. Accordingly, we argue that active and open communication is a significant means for reaching the profound information, which farmers need when developing

ownership feelings towards the business relationship. Thus, our results are consistent with the previous research indicating the important effect of communication on the performance and quality of business relationships in general (Nyaga *et al.*, 2010; Prajogo and Olhager, 2012) and more particularly in the agri-food context (Stank *et al.*, 1999; Li *et al.*, 2015; Cechin *et al.*, 2013).

Our results show the complex nature of commitment among the farmers in the supply chain. The obstacles in the emergence of the feelings of psychological ownership depicted in many critical incidents, but the farmers were still committed to the relationship with the processor. Our study contributes to the discussion on commitment in the agri-food business context by showing how different perceptions of psychological ownership of a business relationship are related to different perceptions of commitment. Despite a rather homogenous operational context and the unanimity in identifying the critical incidents in their relationship with the processor, there was variation in the perceptions of farmers. To illustrate this, we identified three types of farmers based on their level of commitment to the business relationship, namely, the satisfied, captives and leavers. Even though farmers commonly expressed disappointment and frustration at their powerless role in the relationship, the typology of farmers shows that farmers still perceived the routes to psychological ownership differently. The satisfied farmers, for example, justified the appropriate control of the processor as being rather normal business behaviour, whereas captives embodied their experiences to be more coercive. Similarly, satisfied farmers perceived the routes to psychological ownership as more attainable when compared with other types, which is also reflected in their commitment. More specifically, satisfied farmers did not consider their commitment as shackling or binding, but they were rather settled, or their tolerance had increased for the situation, and they desired to stay in the relationship. They did not seem to have the desire to enhance the level of commitment in the relationship – their own or the processor's. The captives, on the other hand, perceived their routes to psychological ownership to be blocked, although they considered themselves committed. They demanded the processor be more committed as well. The conflict between high commitment and low psychological ownership made them feel betrayed and disappointed. The leavers had low psychological ownership and feelings of disappointment but low commitment. However, the leavers did not expect commitment from the processor. Thus, they were ready to leave when a better opportunity would emerge. They were willing to use their power as a demanding partner in business negotiations. Furthermore, they felt like having power because of profound knowledge and skills as a businessperson – not just as a farmer.

We further suggest that these differences between farmers can be explained by the theory of entrepreneurial identity (Suvanto *et al.*, 2020; De Rosa *et al.*, 2019). Individual farmers have limited opportunities to manage their farms strategically, but instead, they have to bear risks like businesspersons with little power to influence actions on the food chain (Phillipson *et al.*, 2004; Thompson *et al.*, 2019). In this paradoxical situation, heterogeneous personal and entrepreneurial capabilities become a significant predictive factor of attitude and behaviour. For example, entrepreneurial farmers can be more innovative and shape their businesses by themselves

rather than be governed by others in the supply chain (Suvanto *et al.*, 2020). However, this study context with strict contractual factors and lack of business partner alternatives challenges their ability to use entrepreneurial identity. This paradox may cause frustration and powerless feelings and thus weaken the routes of psychological ownership.

6. Managerial implications

Our study shows that despite the recession and profitability problems, the farmers were willing to continue their business relationship, and therefore, the commitment – voluntary or forced – was striking. Still, it should be noted that because the commitment in some cases was based on the lack of alternatives for a business partner, it was rather vulnerable in nature. It is common in agriculture that farmers make large and even irreversible investments in their farming operations, and these investments can lock them in the specific business relationship (Helper, 1991; Nilsson *et al.*, 2014). However, because of the low or forced nature of commitment, farmers may lack incentives to invest in the supply chain development, which may risk the joint development, increase the costs of control and weaken the transparency and resilient and, therefore, the competitiveness of the whole chain (Nilsson, 2001; Letizia and Hendrikse, 2016). In our opinion, these incentives to invest in the supply chain should provide farmers with a feeling as being important players in the chain. We, therefore, claim that even though commitment is not necessarily dependent on psychological ownership, the lack of feelings of psychological ownership may decrease the resilience and regenerative capacity in business relationships. Accordingly, we suggest that paying attention to the routes of psychological ownership, namely, to the feelings of control, intimate knowledge and self-investment, is an effective way to enhance the level and depth of commitment among supply chain partners (Kwon and Suh, 2005).

Based on the results of our study, we suggest that sharing valuable information and usage of proactive communication are significant means to enhance farmers' feelings of psychological ownership and, accordingly, commitment in asymmetrical agri-food business relationships (see also Fu *et al.*, 2018). Our results demonstrate how business partners can improve their relationships and deal with critical incidents influencing the effectiveness of the whole chain by enhancing the feelings of psychological ownership thorough communication and valuable information sharing. In previous literature, communication is seen as socially cooperative behaviour that has a direct and positive effect on relationship performance (Ouchi, 1979; Li *et al.*, 2015). When business partners aim for an efficient, resilient and long-term business relationship, they are likely to act in ways that strengthen trust and commitment or, as Yang *et al.* (2021) recommend, empowerment of the other partner. Empowerment reflects in the feelings of control in psychological ownership: when partners are taken into consideration in the decision-making processes, and they think that they have an opportunity to influence the decisions, the feeling of being in control will increase. Our results show that a strong feeling of being in control is a significant empowerer in a business relationship where the asymmetry of power can prevent the development of psychological ownership. Therefore, it is

important to recognize and acknowledge the asymmetrical power balance and its implications for all partners and consider practical actions, such as proactive communication, to reduce the negative effects of asymmetry.

This, however, demands a leadership style that emphasizes proactive communication (Gosling *et al.*, 2016; Fu *et al.*, 2018). In proactive communication, the partners share and even create together operational and financial information but also valuable strategic information, such as forecasts, consumer demands and long-term action plans. Proactive communication enables an increase in the profound knowledge among partners as well as the traceability of production, which creates trust among consumers. We suggest that if commitment in a business relationship is a consequence of psychological ownership feelings through being listened to, then supply chain management should deliberately improve reciprocal, satisfying and proactive communication. Thus, understanding the dynamics of psychological ownership in business relationships can offer practitioners the means to proactively and efficiently manage asymmetrical supply chain relationships.

7. Limitations and future research

We acknowledge some limitations of this study that can be addressed in future research. Firstly, we recognise that the farmers and the processor have a conflict of interests and different perceptions and interpretations. Future research could focus on the critical incidents from the view of both parties. Secondly, the study context, i.e. small-scale contract production, may not apply to all industries, although the results can be extended to industries with similar power relations such as is typical in agri-food business relationships. More research is needed to address the possible impact of differences in certain industries, where the business partners are much easier to replace, or the businesses operate in the spot market without long-term relationships. Comparing the cultural aspects could give interesting results. We still claim that the main idea highlighted in our study, namely, the important link between psychological ownership feelings and commitment, could be applied in future research in any supply chain management context. Thirdly, we did not explore the feelings of psychological ownership and commitment in a longitudinal study. For example, we did not study whether the levels of commitment and psychological ownership were originally or later on higher or lower among farmers. This could provide an opportunity for future research: the psychological ownership, commitment, their changes and their impact on chain performance and quality, trust and satisfaction or value creation could give practical information for business relationship management literature.

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