# Is a cooperation of Latvian forest owners a viable strategic choice? Exploring a collaborative competitive advantage

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**Abstract:** Latvia was one of the rare countries in Europe where forest owners' cooperation was not developed. The empirical study aims to investigate internal and external settings (micro-foundations) that underpin the commercial viability of cooperative strategies of the Latvian forest owners. There have been three primary data collection methods in research: interviewing of experts of the Latvian forest industry, administering questionnaires among private forest experts, direct observation, and archival research. Our research result illustrates that the most interested group of forest owners in cooperation is the one that owns 20–50 ha forest and constitutes 26% of the private forest area; thus, it provides a good potential for forest owners' cooperative (FOC) development in Latvia. Research findings show that FOCs have opportunities to build their collaborative competitive advantage through better exploiting their resources and developing new capabilities to capture more economic rent.

**Keywords:** cooperative strategy; collaborative competitive advantage; forest owners' cooperation; commercial viability; micro-foundations.

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## 1 Introduction

The growing importance of cooperative relationships may currently be observed throughout the world (Cygler et al., 2018). Research streams on competition and cooperation are central to the field of strategic management but have evolved independently (Hoffmann et al., 2018). Traditionally, the relationships between competitors in the industrial market have been based on competition (Bengtsson and Kock, 1999). However, Arslan (2018) argues that cooperative partners enjoy common benefit resulting from synergistic value creation otherwise unavailable to the individual partner. What is more, Carinia and Carpitab (2014) argue that cooperatives are viewed as an alternative to the capitalist business model, which has long prevailed in the industrial sector. Researchers emphasise several benefits resulting from coopetition, e.g., stimulation of innovations of partners, development of the technology, obtaining complementary resources, entering new markets, or creating new products (Cygler et al., 2018). For example, the cooperation of Samsung and Sony in upstream R&D activities enabled them to compete effectively in the downstream TV market by enabling the firms to create quality flatscreen LCD TVs (Velu, 2018). However, when deciding to begin coopetition, companies should not only consider the benefits, but also the drawbacks associated with such relationships (Cygler et al., 2018). The existence of a cooperative strategy does raise a range of questions, not the least of which is whether they make a commercially viable strategic choice or not.

This empirical paper focuses on the specific questions related to market-competition among profit-driven firms vs. more cooperative inter-firm arrangements. The paper is an empirical attempt to find an answer to the following main question of research: is it more beneficial to engage in a long-term cooperative agreement with other firms or is it more advantageous for firms to 'keep their distance' and to interact with each other in a more market-like, transactional way? Swedish private forest owners started to organise themselves in forest owner cooperatives in response to their exposed position on the timber market at the beginning of the last century (Lidestav and Arvidsson, 2012). The share of timber produced by forest owners' organisations varies from 31% in Finland and 75% of the total share in Norway. However, Latvia is unique regarding forestry cooperatives – there were no forest owners' cooperatives at all until the 2012 year. Thus, the aim of the study is exploring the antecedents and consequences of cooperative arrangements inhibiting the emergence of cooperative strategies of Latvian forest owners.

The paper is organised as follows. First, the paper formulates a problem and explains the motivation and topicality for the research. Second, the paper proceeds the theoretical and managerial underpinnings of cooperative arrangement as a type of collaborative

strategies and discuss suitability, feasibility, and acceptability (SFA) model to assess the commercial viability of strategic choices. Third, the paper develops a research framework and propounds two research questions. Next is research design and methodologies. Fourth, the paper explores the collected data and interprets it. The paper concludes with a discussion of the findings, theoretical, managerial, and institutional implications, research limitations and path for future research.

## 2 The problem and motivation of the research

Latvia is one of the rare countries in Europe where forest owners' cooperation was not developed, not to say it did not exist. The Norwegian Forest Owners' Federation with the regional cooperatives is the main economic and political forest owners' organisation with 40,000 members and owners and 80% market share in the timber trade (Confederation of European Forest Owners, 2019). Federation of Swedish Farmers and Federation of Swedish Family Forest Owners (2019) published that about 150,000 forest owners are members of one of Sweden's four forest owners' associations based on cooperative principles. Taken together, they amount to almost 90,000 pieces of afforested land. Profit-sharing via wood price bonus and interest on equity capital. However, Latvia was unique regarding forestry cooperatives – there were no forest owners' cooperatives until the 2012 year and there are only six forest owners' cooperatives founded in Latvia at the beginning of the 2018 year.

Actually, the situation with cooperatives in Latvia is not unique as far as agricultural cooperatives are concerned – about 115 cooperatives are dealing with agricultural industries. In 1990s, there was one forestry cooperative, but it was not very successful, and it ended operating and unfortunately, many forest owners still have a bad experience with this cooperative. During the last couple of years, there is a discussion about forestry cooperatives development and a few initiatives started in this regard. The first FOC was founded at the end of 2011 in Alsunga, and in April 2012, the second FOC was founded in Madona. The main tasks of FOC are to manage the forest areas owned by forest owners under one management plan, to buy services and sell timber. Currently, some companies and individuals work for their profit and take advantage of forest owners' lack of knowledge on forestry, timber value and other matters. Thus, many forest owners do not get the real value for their resources. However, this strategy needs to be evaluated to find out if it would be viable in the given situation in Latvia today.

Nielsen (1998) suggests that the pooling strategy can be a beneficial cooperative strategy since it can reduce duplication and redundancy. First, positive economic effects by combining resources can be achieved through cooperation in supply chains. According to Buxmann et al. (2008), the benefits of cooperation in supply chains is that integrated approach among the actors, e.g., suppliers, manufacturers, distributors as well as logistics service providers, leads to better results than isolated planning. In the case of 'no cooperation', there is neither information sharing nor any other kind of coordination of the planning processes between the supply chain members. Further, Buxmann et al. (2008) explain that 'decentralised cooperation' implies that the supply chain members first plan independently, and it corresponds to the present model of private forest management. In the next step, the exchange information about their plans that may be relevant for the planning processes of other members, and this scenario corresponds to

the competitors' approach where they compile enough management activities from individual properties to increase the economies of scale. And in scenario 'centralised cooperation', a central instance conducts the planning for all involved members of the supply chain, and it corresponds to the FO cooperative approach. In the scenario of centralised cooperation in the supply chain, the key factor is the organisation's capabilities in sustaining the competitive advantage.

Second, Deming (1994) says that on company level resolution of conflicts, and removal of barriers to cooperation are responsibilities of management. Reflecting the same idea on a national level, it would be the responsibility of the government to remove the barriers to cooperation. According to Hull and Ashton (2008), government and non-government forestry organisations can support FOC by providing financial, technical and organisational support. Technical support could include business and marketing plans and resource inventory strategies, as well as silviculture and low-impact harvesting techniques. Hull and Ashton (2008) point at cooperatives' role on a community level by suggesting the facilitating factor of organisational assistance which could include facilitators helping landowners and communities use cooperatives as economic development and environmental conservation tools. Financial assistance from the government could include low-interest loans, start-up grants, and space at industrial parks. The forest owners' cooperative might have the capabilities to better operate in the given environment and use the opportunities and mitigate threats than their competitors – individual forest owners and companies providing forest management services. Cruikshank et al. (2015) found that knowledge management of strategy is critical for strategic change to be successful. In this vein, knowledge management of cooperative and its combinative capabilities are contributors towards the organisational capability of cooperative to learn and innovate (Singh and Burhan, 2018). Knowledge management of cooperative would foster associated partners' absorptive capacity to recognise and assimilate external information and knowledge which positively impact an organisation's performance (Sullivan and Tang, 2012).

Altman (2015) argues that economies of scale and scope as well in transaction costs can be captured by the cooperatives. Research on the consequence of coopetition tends to echo the motivation for coopetition by identifying potential outcomes such as resource access and pooling, cost-sharing and reduced risk (Bouncen et al., 2015). Coopetition can also contribute to various types of innovation, including incremental and radical innovation, as well as to the diversity of technologies (Ritala and Hurmelinna-Laukkanen, 2013; Ritala and Sainio, 2014).

When it comes to the motivation and topicality of current research, Strategic Management Society (SMS) (USA) has been particularly instrumental in fostering this interest. In the recent special issue 'The interplay of competition and cooperation' of *Strategic Management Journal*, Hoffmann et al. (2018) provided five specific areas where further research on the cooperative arrangement is needed. One such area concerns the *antecedents, process, and consequences* of cooperating with competitors. How do industry condition and firm's resources configuration shape coopetition? A second area for development *concerns values creation and appropriation*. How do firms simultaneously manage value creation and appropriation in their cooperative relations? A third area of research concerns a firm's capabilities and organisation for supporting coopetition. How does the alignment of the coopetition capabilities of the firm and its partners shape the performance (Hoffmann et al., 2018)? This research contributes to those contemporary scientific concerns. What we want to know more is whether it is

commercially viable that Latvian forest owners do not develop their strategies in 'splendid isolation', but rather coordinate their strategies to cooperate as a team. For a single forest owner with limited resources and capabilities, it is difficult to take advantage of the advantages of a cluster, but for a cooperative with enough resources and capabilities it would suitable and feasible. Therefore, the literature review of the paper analyses the cooperative arrangement as a type of collaborative strategy and experiences from other countries that will help in exploring antecedents and consequences of a cooperative strategy of private forest owners in Latvia.

## 3 Literature review and theoretical framework

### *3.1 The cooperative arrangement as a type of collaborative strategy*

A cooperative is a type of business that is owned cooperatively by several people for their mutual benefit (O'Sullivan and Sheffrin, 2003). Cooperatives come in many different forms and functions – it is difficult to give a clear demarcation of this field (Oorschot et al., 2013). The International Cooperative's Alliance's (ICA, 2019) Statutes provide the following definition for a cooperative: "A cooperative is an autonomous association of individuals that are voluntarily united to meet common cultural, economic, and social needs and aspirations through jointly owned and democratically controlled enterprises." Birchall (2009, 2004) proposes that cooperatives are businesses, owned and controlled by their members, which are setup to meet a common need. The organisational and ideological roots of cooperation extend back to feudal arrangements as far as back between workers and owners that are referred to today as 'profit-sharing' and 'surplus arrangements' (Gates, 1998). From the mid-19th century, these principles became incorporated in the cooperatives, as we know them today, i.e., in economic enterprise, initially amongst trade's people and later in financial institutions, industrial enterprises, educational institutions, and cooperative shops. The idea was that an association or enterprise should be owned and controlled by the people that it serves and share surpluses on the grounds of each member's cooperative association rather than on their ability to invest financial capital (Ridley-Duff, 2009). According to the definitions provided above, a cooperative is a legal entity that is equally owned, controlled, and operated by its members. Cooperatives differ from other businesses because they operate for the benefit of their members, rather than to earn a profit for investors (Hardesty and Salgia, 2007). Members have a close link, too, with the organisation as either/or being it employees and being consumers of its products. Some countries, for instance, Finland or Sweden, permit specific forms of operation for cooperatives. Cooperatives may legally take various forms such as characterising partnerships, companies that are restricted by shares or by guarantees, or unincorporated associations. The Nordic countries differ in their regulatory approach to cooperatives. Finland (since 1909) and Sweden (since 1895) have for many years enacted laws on cooperatives (Fjortoft and Gjems-Onstad, 2004). In Norway Act on Cooperatives was passed only in 2007.

The cooperative ownership model is used in a wide variety of contexts in the USA, ranging from the production and distribution of energy to delivery of home healthcare services for the elderly (Deller et al., 2009). In the USA, cooperatives are bound by state-specific laws to cooperatives and may be organised as non-capital stock corporations. These may also, however, be included under US law as unincorporated

associations or limited liability business companies or partnerships. These later cases may be useful when the members either want to permit some members to exert greater control of the company than others, or when they want to permit some investors to have a return on their capital that exceeds fixed interest, neither of which is allowed were they legally considered a cooperative in the technical sense. In the USA, the tax system recognises cooperatives a special type of business and sets criteria for subjecting taxes. For example, federal tax code grants tax exemptions to certain cooperatives operating in specific sectors, treating them as not-for-profit entities (Deller et al., 2009). In general, cooperatives are legally defined as sharing their earnings with their members as dividends – unlike investor-owned businesses they pay a dividend based on member's transactions with the cooperative, not on the amount of share capital they own (Birchall, 2004). Lidestav and Arvidsson (2012) add that individuals are assumed to become members of social or other reasons, but their interests lie in their activities and benefits.

As stated by ICA's (2019) Statement on the Cooperative Identity, cooperatives premise themselves on the seven founding principles of 'self-help, self-responsibility, democracy and equality, equity and solidarity' and their seven cooperative principles are the following:

1 concern for community

2 cooperation amongst cooperative

3 education, training and information

4 autonomy and independence

5 member economic participation

6 democratic member control

7 voluntary and open membership.

Based on the cooperative's history, they stress the ethical values of honesty, caring for each other, openness, and social responsibility. Membership is open to anyone who satisfies certain conditions, and economic benefits are distributed according to each member's status of participation in the cooperative (ICA, 2019). Rather than being divided per the amount of capital invested, economic benefits are divided as a dividend, for instance, on sales or purchases. Birchall (2004) adds that these ethical values are not just formal wordings, but like the cooperative values and principles they can be applied in real situations to help us to evaluate progress and to eliminate some types of action as being incompatible. Birchall (2009) explains the classification of cooperatives by the role of stakeholders in a business, which is its consumers, the producers who supply inputs to or take the outputs from the business, and its employees. The advantage of cooperation lies in channelling the value-added from the business to one of these stakeholders rather to investor-owners or to 'middleman'. Lidestav and Arvidsson (2012) provide a contrasting view on this classification since they find the way of defining and addressing the members in four different ways – as a member, owner, customer or supplier – an illogical one. Lidestav and Arvidsson (2012) stress that they are members and nothing else. In case of forest owners' cooperative (FOC), Lidestav and Arvidsson's views would be more appropriate as forest owners being members of a cooperative use the services and benefits of the cooperative and should not be regarded as producers or consumers.

Various types of cooperatives operate in a field depending on its members' needs. The various types include housing cooperatives, utility cooperatives (i.e., a consumer's cooperative that involves itself with delivery of some utility good such as electricity, gas, or water), credit unions and banking cooperatives (these are, generally, owned and controlled by their members), and federal or secondary cooperatives (i.e., cooperative federations in which all the members are themselves cooperatives) (ICA, 2019).

Agricultural cooperatives, closely related to forestry cooperatives, are cooperatives where farmers pool their resources for a collective economic benefit. Agricultural cooperatives pool purchases, distributes, and stores farm resources, thus bringing down member's cost through economies of scale and other strategies and may also supply farm machinery, seeds, fertilisers, chemicals, fuels, and similar products to their members. Agricultural marketing cooperatives provide members with the services for moving a product from production to consumption. These are often formed to promote specific commodities, like in Latvia agriculture cooperatives are working in sectors of grain, dairy, sheep growing, meat production, etc.

FOC share a lot of characteristics with agriculture cooperatives. Birchall (2009) explains the common features of farming and forestry by saying that they are both involved in creating value in an uncertain encounter between humans and the natural world that depends on climate and topography and that carries risks. They both need inputs to their production in the form of tools, seeds, fertilisers, nets, machinery and so on. They also need insurance to lessen the risks, though some of the uncertainties they face are uninsurable. Then, when the product has been created, they need to have it collected, put it through some basic processing and then marketed.

A cooperative with a market-power structure could operate in niche markets with a strong brand identity and handle limited volumes of member product to maximise its profitability as a firm (Hardesty and Salgia, 2007). However, this approach could be viable only if achieving significant economies of scale. For example, if there are 15 lime trees in one property, it would require another 20 lime trees to pack the offer for the crafts industry who need lime trees. Companies may specialise in customer group, customer need or geographic region so that many small companies operate in local or regional markets.

Ghosh (2007) explored the cooperative sector in India due importance as a third sector which could act as a balancing factor by eliminating the drawbacks of the public and private sectors. However, except for a few successful cooperatives, the cooperative movement in India has failed to bring about a transformation of the rural economy. Meanwhile, Clegg (2006) had researched policy and practice of rural cooperatives in China and shown that reforms in the cooperative economy have been gradual, favouring the more entrepreneurial or better-placed farmers to pursue new market opportunities. Hardesty and Salgia (2007) emphasise that cooperatives' long-term viability may depend on their ability to reduce their costs substantially as processors of undifferentiated products or to enhance their capabilities as marketers of more value-added products. Thus, the idea behind the FOC is that for a customer in forest industry, it is difficult or even impossible to purchase products from a forest owner because the volumes of one assortment, e.g., pulpwood, that one owner can place on the market is too small to organise efficient logistics and offer a good price. Therefore, the function of a FOC is to put together one type of product from many members thus ensuring necessary volumes for efficient logistics and becoming a partner for the producer. In the meantime, this

situation with no FOC provides a niche for 'middleman' operations who buy all products from the forest owner, bring to their inventories and then sell the required volumes to the processing companies. In this case, forest owner has no choice but share the profit with the 'middleman'.

### *3.2 International experience in forest owners' cooperation*

Cooperative as a type of entrepreneurship is very popular in the world. According to International Cooperatives Alliance, there are about 800 million people involved in cooperatives. The total turnover generated by cooperatives is about 700 billion euro. In Europe, there are about 160 thousand cooperatives that unite 123 million members. In Europe, cooperatives employ 5.4 million people. The biggest importance of cooperation is in Finland where 4 million or 84% of the population are engaged in 4,100 cooperatives. The main industries where cooperatives operate are retail, finances and banking, insurance, dairy and meat production, grain, forestry and fisheries. Some of the most popular European cooperatives are Arla (dairy, Denmark), Metsäliitto (forestry, Finland), Valio (dairy, Finland), and Crédit Agricole (finances, France). Regarding the experience of farmers cooperation in Latvia, the data shows that there are positive examples of cooperation in Latvia in a very related sector – agriculture (Zemkopības ministrija, Nozares portals, 2018).

Development of forest owners' cooperatives varies a lot from country to country as it is related to the needs of forest owners at a particular point in history. Swedish private forest owners started to organise themselves in forest owner cooperatives in response to their exposed position on the timber market at the beginning of the last century (Lidestav and Arvidsson, 2012). A similar experience is in Finland. In Eastern Germany, FOC started to develop in the 1990s after the reunion of Germany. The share of forest owners' organisations' produced timber varies from 75% of the total share in Norway and 31% in Finland to 0% in Latvia until the 2012 year. It can be explained by the fact that there were no forest owners' organisations that operate in the timber market in Latvia. Taking into account that most of the factor conditions in Finland, Norway, Estonia, and Latvia are similarly available and strong (forest resources, administrative infrastructure, physical infrastructure, scientific and technological infrastructure), it can be concluded that there are all possibilities for Latvia to develop similar organisations: market segmentation should be conducted thoroughly in order to identify all potential customers of FOC offered products, and government policy on cooperation at this stage is critical. It is a question of the legislation referring to cooperatives' operations and it is a question of support measures. Therefore, a cooperative strategy needs to be evaluated to find out if it would be a commercially viable strategy in the given settings of Latvia today.

### *3.3 The commercial viability of strategic choice and its micro-foundations*

Child and Faulkner (1998) was one of the major authors that begun to discuss the commercial viability of strategic choice. He claimed that the concept of strategic choice initially originated from the perception that the company's direction was defined by its operational strengths and opportunities. Johnson et al. (2011) have a similar approach to the assessment of strategic choice. They were the major contributors to the strategy choice viability by applying clear model SFA of examining strategic opportunity through three assessment criteria: SFA. Suitability links strategic choices to the major factors in

an organisation's strategic position. Suitability is concerned with assessing which proposed strategies address the key opportunities and constraints an organisation faces through an understanding of the strategic position of an organisation: it is, therefore, concerned with the overall strategy. Feasibility is about capability. Lack of resources and low levels of competence will make strategy delivery difficult in any organisation. Feasibility is concerned with whether a strategy could work in practice. An assessment of feasibility is likely to require two key questions to be addressed:

a do the resources and competencies currently exist to implement a strategy effectively?

b if not, can they be obtained?

Acceptability is all about stakeholders. Acceptability is concerned with whether the expected performance outcomes of a proposed strategy meet the expectations of stakeholders. It is sensible to use more than one approach to assessing the acceptability of strategy. These can be '3Rs': risk, return and stakeholder reactions.

However, many of the causal linkages between the strategic choice process and the micro-foundations underpinning the process are unclear (Foss and Lindenberg, 2013).

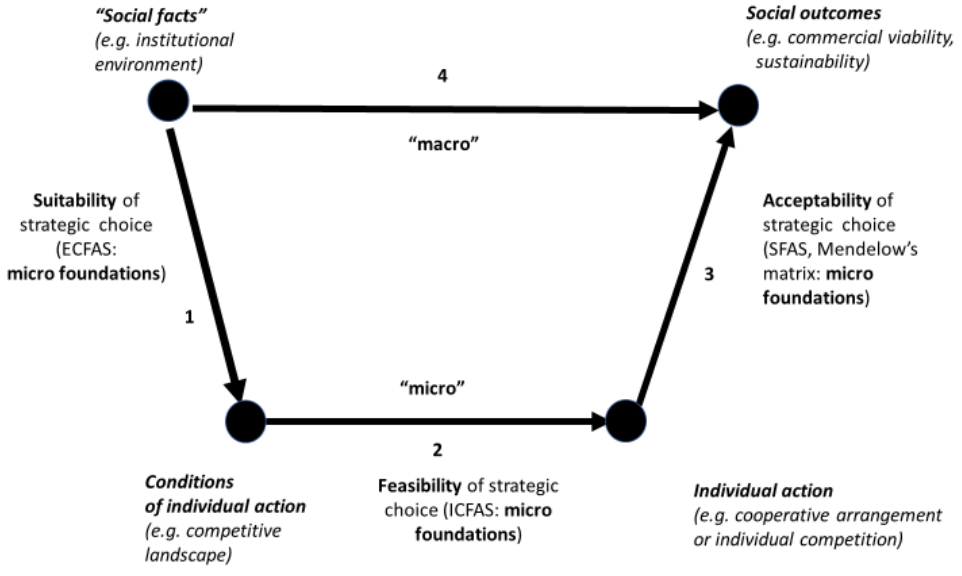
'Micro-foundations' is "theory-based empiricism which seeks casual explanations for strategies, based on actions and interactions of organizational members" [Contractor et al., (2019), p.5]. "Introduced into macro-management research a decade, the micro-foundations lens has been applied to macro-concepts (and the underlying perspectives) such as capabilities, dynamic capabilities, routines, competitive advantage, rent appropriation, organizational innovation, strategic problem solving, absorptive capacity, the flexibility/efficiency tradeoff, and institutional isomorphism" [Foss, (2015), p.117]. However, the micro-foundations theme only partly was debated on the cooperative arrangement in management research.

The importance of applying theories on the micro-foundations of strategic action in coopetition research is discussed (Bengtsson et al., 2016). Bengtsson et al. (2016) argue that the future growth of the coopetitive research field incorporates theories on the micro-foundations of strategic action which can substantially enhance the field. "The notion of micro-foundations is a fundamentally simple one" [Foss, (2015), p.117]. Foss (2015) argues that it is the heuristic that collective/ aggregate/macro outcomes (in the current paper: private forest owners' performance) and formations (in the current paper: cooperative) be explained in terms of the actions, attitude and interactions of lower-level entities, typically (but not necessarily) individuals (in the current paper: private forest owners).

Contractor et al. (2019, p.6) argue that the impetus of the micro-foundation research is "to unpack or decompose aggregate firm-level concepts in terms of individual action and interaction; to understand the process that aggregate individual actions into resultant strategy outcomes." "In the most abstract terms, micro-foundations are about identifying the proximate causes of a given phenomenon at a level of analysis lower than of the phenomenon itself … Sampling data at the relevant levels, measuring and testing the theory is micro foundational empirics" [Contractor et al., (2019), p.7]. Between the cooperative as a whole, and individual private forest owners, an intermediate unit of analysis could be the interest of forest owners' groups each espousing their agenda (Olson, 2009).

To deepen our understanding of the micro-foundations of forest owners' strategic choice and to organise data collection and their interpretation, the conceptual model of research has been developed and given in Figure 1. The central micro-foundational ideas have often been illustrated using the famous 'Coleman bathtub' which is a foundation of the conceptual model in Figure 1. The Coleman (1990) bathtub illustrates that collective outcome (e.g., cooperative arrangement) and formations of a cooperative can be explained in terms of the action and interactions of lower-level entities, typically (but not necessarily) individuals (e.g., private forest owners).

**Figure 1** Conceptual model of research




*Source:* Coleman (1990) diagram, adopted and extended

The point of the diagram is that explanation in current research takes place employing the mechanism implied by arrows 1, 2 and 3, but never arrow 4 alone (Abell et al., 2008). It is the case that micro-foundations 'work' in the theoretical dimension. "In terms of theory-building, micro-foundations are thus demonstrably doable" [Foss, (2015), p.118]. However, a key issue concerns the empirical dimension of micro-foundation research (Foss, 2015). Thus, because the Coleman diagram is so flexible, it also leaves many things open. In the current paper, we consider micro-foundations in the context of the cooperative arrangement of private forest owners, offering a concrete suggestion regarding how micro-foundational insights may be explored further in coopetitive strategies research. The conceptual model constitutes a chance to explore the micro-foundations of strategic choice employing the combination of arrows 1, 2 and 3 in the Coleman diagram.

To operationalise the micro-foundations of the strategic choice on the cooperative arrangement of private forest owners of Latvia, we have adopted a quantitative strategic planning matrix (David et al., 2009). Quantitative strategic planning matrix (QSPM) is a strategic management tool that allows strategists to evaluate alternative strategies objectively, based on previously identified external critical success factors by means of

ECFAS matrix and internal critical success factors by means of ICFAS matrix and thus to assess the suitability (arrow 1) and feasibility (arrow 2) and their micro-foundations of strategic choice (David et al., 2009). The SFAS result of QSPM can be used to get a justification of acceptability (arrow 3) of strategic choice, but not only that. When examining the final part of selected strategies in terms of acceptability (arrow 3), it is necessary to consider the stakeholders' reaction, and therefore, micro-foundations (how stakeholders think and decide) to each strategic choice. The matrix developed by Mendelow (1991) defines how the stakeholders can impact the company or be impacted by it and determines the attitude of the stakeholders (i.e., micro-foundations) towards the cooperative arrangement as well as its objectives. In this vein, examining the viability of a strategic choice through three assessment criteria: SFA model allow us to integrate Coleman diagram with QSPM tool and Mendelow matrix, and therefore, understand, operationalise, and explain their micro-foundations.

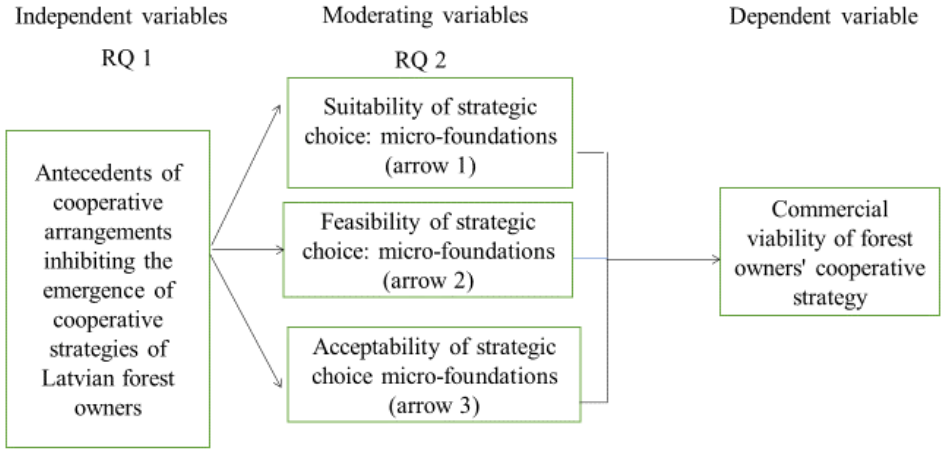
An explanation based on the internal and external analysis (i.e., micro-foundations) of the cooperative arrangement in terms of possible actions and attitude of lower-level units (i.e., private forest owner) is likely to be more stable and general than an explanation which remains at the system macro-level according to Foss's (2010) argumentations with arrow 4. Therefore, the current paper has defined research gaps in the research of the micro-foundations of strategic choice on the cooperative arrangement as a theoretical basis and thus, as the justification for the given research. Fruitful exploration of micro-foundations of cooperative endeavours can give to research "a new set of variables which are important in inter-organizational relationships" (Smith and Carrol, 1995). What is more, Smith and Carrol (1995) argue that "researchers taking a micro foundation perspective would be able to articulate the psychological underpinnings" of cooperation (i.e., trust and motivation) and to shed light on the issue how two or even more forest owners might better cooperate than compete.

### *3.4 Theoretical framework*

The main goal of this paper is to investigate the commercial viability of strategic choices that are available for forest owners cooperating in the FOC. Therefore, the commercial viability of forest owners' cooperative strategy may be used as a dependent variable in this study. The above-stated factors influencing the strategic choice may be grouped into two main variables, which influence strategic choice: antecedents of cooperative arrangements; suitability – key issues relating to the opportunities and constraints an FO faces; feasibility –capabilities of FO has or can obtain to deliver a cooperative strategy; and acceptability – the expected performance outcomes that meet the expectations of shareholders. The unit of the current research is a micro-foundation of collaborative competitive advantages.

Antecedents of cooperative arrangements inhibiting the emergence of cooperative strategies of Latvian forest owners are independent variables. Micro-foundations of strategic choice (arrows 1, 2 and 3) are moderating variables of current research. Thereby, the moderating variables (SFA of strategic choice) are one that has a strong contingent effect on the independent variable-dependent variable relationship (Sekaran and Bougie, 2018).

**Figure 2** The theoretical framework of research (see online version for colours)




Once the theoretical framework has been established, it is now possible to consider the appropriate two research questions that will serve as guidelines on how to achieve the aim of the research.

- *First research question (RQ1):* What antecedents of cooperative arrangements in terms of the motivation of cooperate, reward mechanism and others inhibiting the emergence of cooperative strategies of Latvian forest owners are?
- *Second research question 2 (RQ2):* Is it commercially viable to manage a network of cooperative relations in terms of contextual institutional macro-causes, competitive landscape, and the knowledge transfer advantages or is it preferable by having the forest owners operate independently?

In survey research, three main data collection methods are interviewing, administering questionnaires, and observations and the authors have used them all during research to answers research questions (Sekaran and Bougie, 2018). There is the following data's collection methods applied: quantitative – secondary data and questionnaire, and qualitative – semi-structured interviews.

## 4 Methodology

The research is carried out under an – contrived settings as a descriptive, cross-sectional study with the minimum researcher interference. Forest owners of Latvia are serving as the units of the study. The data is collected with the help of interviews and questionnaires, direct observation of the industry development, and eventually, analysis of the publications and studies on private forestry theme. Primary data collections are used through interviews and questionnaires answered by experts from the forest sector in Latvia. The used data provides cross-sectional data on forest experts, not forest owners. Expert judgement requires an expertise that is not present within the different forest owners, and as such, the external experts 'specific relevant skill set, and knowledge-base are more objective views on the commercial viability of cooperative arrangement. These

give important insights into the issues. The questionnaire was aimed at finding out which groups of forest owners would be most interested in participation in FOC. The questions included in the questionnaire were both closed and open-ended. The closed-question asks the respondent to make choices among a set of alternatives given by the researchers and open-ended questions allow respondents to answer them in any way they choose (Sekaran and Bougie, 2018). As for measurement principles, the questionnaire was designed with the numerical scale depending on the choice provided from 1 to 5 or from 1 to 7 with bipolar attributes at the extremes of the scale (1 means low, 5 means high priority). According to Sekaran and Bougie (2018), sampling is defined as the process of selecting the right individuals, objects or events for research purposes. The criteria that the researchers set as for the choice of respondents was the following: knowledge of timber products market, prices, and volumes; familiarity with the ways private forest owners organise their forestry activities; knowledge on the scope of forestry services; knowledge on private forestry structure and its impact on the forest industry. Based on the criteria described above the respondents were chosen from the following fields: leaders of the national and local forest owners associations; experts working individually in forestry services business; experts working for companies that provide services to FO and deal with timber sales. Before distributing the questionnaire, researchers addressed to selected potential respondents by phone and informed them about the study to be conducted and invited them to respond to the questions in the questionnaire. Then, questionnaires have been distributed by e-mail to 20 private forestry experts. The questionnaire was sent out individually to each respondent and the filled forms were received back by e-mail within two weeks. This approach appeared to be successful as out of 20 persons addressed 18 responded. Secondary data, such as previous research in private forestry and reports on forest sector's figures as well as other related sources as research articles, reports and industry's reviews were analysed. Then, the semi-structured interviews were planned and conducted. Three persons were interviewed – executive director of Latvian Federation of Timber Industry, leader of the newly established FOC 'Mežsaimnieks', and executive director of State JSC 'Latvijas valsts meži'. All interviewees agreed that the information obtained within interviews may be used for the current research. Having answered the second research question, there were two tools applied: quantitative strategic planning matrix (QSPM) and then Mendelow's 'expertise/willingness' matrix. The QSPM provided a clear comparative platform to evaluate the suitability and feasibility of the strategic choices on cooperative strategy. To analyse the acceptability of the chosen strategy, the Mendelow matrix has been applied.

## 5 Data analysis and results

According to Hill and Jones (2008), a fragmented industry is one composed of many small and medium-sized companies. Since there are 150 thousand private forest owners in Latvia and there are no strong local and regional forest owners' organisations, it can be concluded that Latvian private forestry is a fragmented industry. In the study conducted by Jansons (2010), it was found the same that private forestry in Latvia is a very fragmented industry – there are 144,069 forest owners with the average forest property size 7.5 ha and 92% of all forest owners own less than 20 ha, while in Scandinavian countries where forest sector is also very important in the national economy, the average

forest in Sweden is 45 ha, in Finland – 30 ha, and in Norway – 50 ha (Wilhemsson, 2006). All these figures exceed the average figure for Latvia several times which sets a rather challenging task for forest owners' organisations.

- *Research question 1:* What antecedents of cooperative arrangements in terms of the motivation of cooperate, reward mechanism and others inhibiting the emergence of cooperative strategies of Latvian forest owners are?

The questionnaire was aimed at finding out which groups of forest owners would be most interested in participation in FOC. The results given in Figure 3 illustrate that according to experts' evaluation, the group most interested in FOC would be the ones that live in cities. The next group most interested in cooperation would be the ones that own 20–50 ha forest. There is a trend of decreased interest for forest owners with larger forest properties – 100 ha and more. It can be explained by forestry being their private business and their resources are sufficient for efficient forest management and timber sales. The important conclusion here is that the group of FOs with 20–50 ha constitutes 28% of the private forest area which is a very good potential for FOC operations. Considering a large number of forest owners in the group 1–20 ha, it can be stipulated that even with forest owners' cooperation development there might be many forest owners who still would be outside any forest owners' organisation and their forest resources would remain poorly managed.

**Figure 3** Which forest owners' group would be most interested in cooperation? (see online version for colours)


The analysis and interpretations regarding resource exploitation allow concluding that there is a very good potential for cooperative operations because so many forest owners simply do not manage their forests due to lack of knowledge, motivation, access to the market, bad experiences or other reasons. Then, all respondents agree that there would be price benefit provided FOC can deliver certain volumes of timber. 45% of the respondents indicate that the price benefit would be minimal – 2%–5% as shown in Figure 4.

**Figure 4** Price benefit for timbre volume (see online version for colours)

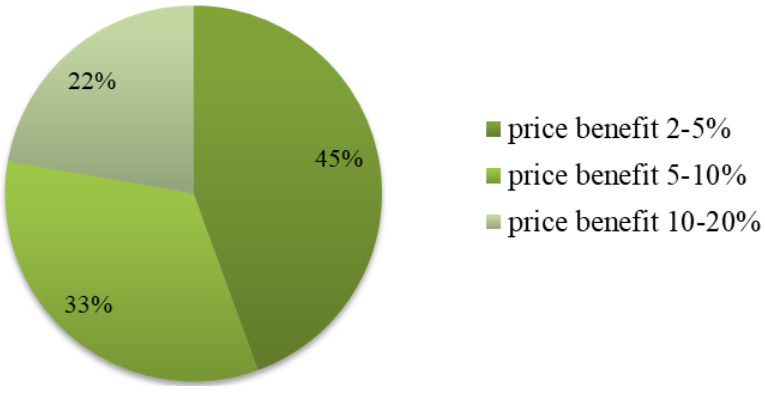
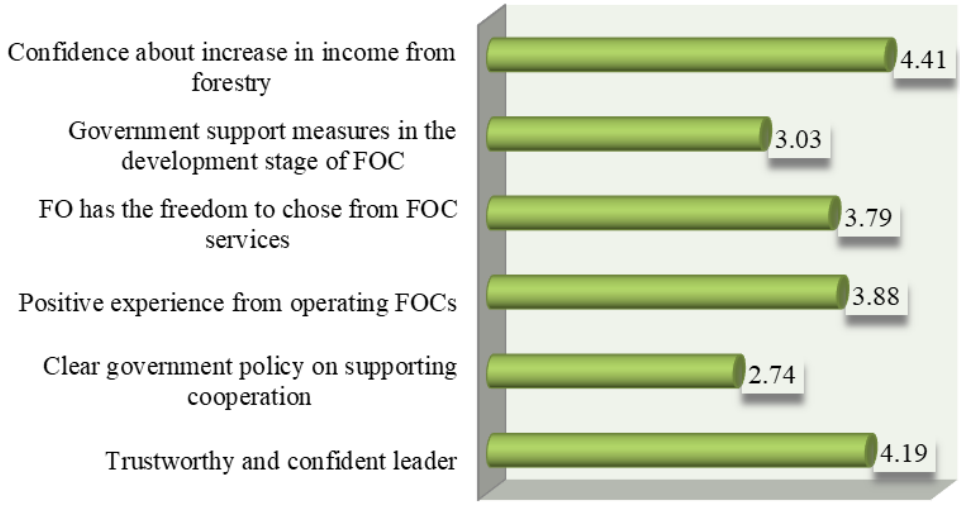



**Figure 5** Motivation to join FOC (see online version for colours)




A very important conclusion here is that FOC should have the potential to provide price benefit for their members through pooling resources and common market access. This finding indicates as well, that cooperation strategy can be *feasible* only in certain economies of scale. Thus, it can be concluded that contract-based cooperation is possible and desirable for both parties of the wood-processing industry for guaranteed round-wood deliveries and from FOC point of view – possibility to agree on a good price. It is the first important *motivator* to join in cooperation on contract-based agreements. Last, but not least, *motivating factors* can be divided into two parts – psychological and practical. According to respondents' evaluation, the integrity, reputation, and professionalism of the FOC leader are the second important motivator to join in. Considering the not very positive experience in the '90s with FOC, today the role of the leader is critical. FO would need to know the leader and trust him or her. This finding is quite close to Xue et al. (2018) argument, they found the competence trust reduces partner opportunism in a joint venture through fostering cooperation. Trust supports the

exchange of information between members of cooperatives (Jensen-Auvermann et al., 2018). Therefore, trustworthy and confident leader of FOC is one of the major success factors of cooperative arrangement as shown in Figure 5. Thus, we have answered the first research question.

- *Research question 2:* Is it commercially viable to manage a network of cooperative relations in terms of contextual institutional macro-causes, competitive landscape, and the knowledge transfer advantages or is it preferable by having the forest owners operate independently?

Quantitative strategic planning matrix provides a summary of the main factors influencing the competitiveness of private forestry and gives an evaluation, based on the gathered knowledge in the investigation process, of the suitability of the existing individual competition approach of approach versus the cooperative strategy as shown in Table 1. Forest owners' cooperative strategy aims to facilitate better management of private forests, more efficient use of timber resources and education of forest owners. Today the average size of private forest property is 7.5 ha. It is not possible for one forest owner to manage efficiently a forest area of 7.5 ha because forest owners who sell timber once in several years and act on their lack sufficient knowledge and experience on timber sales, marketing and competition due to the low volumes of production provided. By becoming members of FOC, forest owners would have the opportunity to sell their timber via this organisation, entrust a part or all the forestry's works to a cooperative, get professional advice from its staff on forestry, legislation, taxes, and other issues related to forest management. The QSPM overall assessment score (SFAS = 5.97) for cooperation strategy over the score for the individual approach (SFAS = 3.61) can be explained by the possibilities of a cooperative to capitalise the opportunities in private forestry. By pooling resources *economies of scale* can be increased which subsequently provide advantages in capitalising existing opportunities. Provided a certain level of *economies of scale* that have been reached, it would be possible to improve forest management productivity and efficiency by the common planning of management activities and better access to the market. Increasing the wood energy market also provides opportunities for FOC in terms of producing fuelwood which in an individual approach is impossible. Producing wood energy requires knowledge, economies of scale, chipping services, and contract with the heating operators means features that FOC should possess. *Availability of EU funds* for forestry activities can also be better used by a cooperative than a single FO. Two strategies in forest management have been compared by using the QSPM model.

It became clear that a cooperative arrangement approach is better in term of capitalising the existing external opportunities in private forestry, thus proving a suitable strategic choice for increasing the competitive advantage of FO. The Mendelow's (1991) 'expertise/willingness' matrix given in Table 2 and displayed the positions of stakeholders in the scenario of FO cooperation as shown in Figure 4. FOC members, other forest owners, employees and customers of FOC are the key stakeholders.

Because these stakeholders of forest owners' cooperation may benefit in their businesses, except the 'middleman' companies, it can be concluded that as for *acceptability* of the industry stakeholders, that gave evidence the FOC is a commercially viable strategy. Thus, we answered the second research question.

**Table 1** Quantitative strategic planning matrix (QSPM): suitability and feasibility of strategic choice

| *The result of external and internal environments scanning* | *Individual competitive approach* | | | *Cooperative arrangement approach* | | |
|---|---|---|---|---|---|---|
| | *Weight* | *Attractiveness score (AS)* | *Total attractiveness score (TAS)* | *Weight* | *Attractiveness score (AS)* | *Total attractiveness score (TAS)* |
| *Feasibility of strategic choice* | | | | | | |
| Internal strengths | | | | | | |
| Renewable resources available | 0.14 | 4.0 | 0.56 | 0.14 | 4.0 | 0.56 |
| Knowledge management | 0.12 | 1.0 | 0.12 | 0.12 | 2.0 | 0.24 |
| Management information systems | 0.12 | 2.0 | 0.24 | 0.12 | 3.0 | 0.36 |
| Sustainable forest management | 0.07 | 2.0 | 0.14 | 0.07 | 2.0 | 0.14 |
| Variety of trees species | 0.08 | 1.0 | 0.08 | 0.08 | 2.0 | 0.16 |
| Internal weaknesses | | | | | | |
| Fragmented industry | 0.10 | 1.0 | 0.10 | 0.10 | 2.0 | 0.20 |
| Lack of access to a whole value chain | 0.11 | 1.0 | 0.11 | 0.11 | 2.0 | 0.22 |
| No direct accesses to producers | 0.12 | 2.0 | 0.24 | 0.12 | 2.5 | 0.30 |
| Management planning system | 0.07 | 2.0 | 0.14 | 0.07 | 2.5 | 0.18 |
| Poor forest infrastructure | 0.08 | 2.0 | 0.16 | 0.08 | 2.0 | 0.16 |
| *Internal critical success factors assessment score (ICFAS) – feasibility* | 1.00 | | *1.89* | 1.00 | | *2.53* |
| *Suitability of strategic choice* | | | | | | |
| External opportunities | | | | | | |
| Economies of scale and scope | 0.12 | 1.0 | 0.12 | 0.12 | 4.0 | 0.48 |
| EU funds available in future | 0.11 | 2.0 | 0.22 | 0.11 | 3.0 | 0.33 |
| Use of forest resources can be increased | 0.09 | 2.0 | 0.18 | 0.09 | 2.0 | 0.18 |
| Increasing the wood energy market | 0.09 | 1.0 | 0.09 | 0.09 | 3.5 | 0.32 |
| Improvement in profitability and effectiveness | 0.1 | 2.0 | 0.20 | 0.10 | 3.0 | 0.30 |
| Establish business with producers | 0.11 | 1.0 | 0.11 | 0.11 | 4.0 | 0.44 |
| External threats | | | | | | |
| Environmental restrictions | 0.05 | 3.0 | 0.15 | 0.05 | 4.0 | 0.2 |
| More forest sold to companies | 0.08 | 2.0 | 0.16 | 0.08 | 4.0 | 0.32 |
| Urbanisation | 0.05 | 2.0 | 0.10 | 0.05 | 3.5 | 0.18 |
| Economic downturn | 0.12 | 2.0 | 0.24 | 0.12 | 3.5 | 0.42 |
| Lack of qualified workforce | 0.08 | 2.0 | 0.16 | 0.08 | 3.5 | 0.28 |
| *External critical success factors assessment score (ECFAS) – suitability* | 1.00 | | *1.73* | 1.00 | | *3.44* |
| *Overall strategic factors assessment score (SFAS)* | | | *3.61* | | | *5.97* |

**Table 2** Stakeholder mapping in the scenario of FO cooperation

| *Stakeholder* | *Expertise* | | *Willingness* | *Value* | | *Action* |
|---|---|---|---|---|---|---|
| | *Contribution* | *Legitimacy* | *Willingness to engage* | *Influence* | *Necessity of involvement* | *Strategies might be applicable* |
| Forest owners | High | High | Medium | High | High | Engage |
| Shareholders | High | High | High | High | High | Engage |
| Industry associations* | High | High | Medium | High | Medium | Engage |
| Government** | High | Medium | Medium | High | Medium | Engage |
| Customers | High | Medium | Medium | High | High | Communicate (active) |
| Employees | High | Medium | High | High | High | Communicate (active) |
| Related industries | High | Medium | Medium | High | Medium | Communicate (active) |
| Suppliers | High | Medium | Medium | Medium | Low | Communicate (active) |
| Opinion leaders | High | Medium | Medium | Medium | Medium | Communicate (active) |
| Environment NGOs | Medium | Medium | Medium | Medium | Medium | Communicate (passive) |
| Competitors | Medium | Low | Medium | Medium | Low | Communicate (passive) |
| State agencies | Medium | Medium | Low | Medium | Medium | Communicate (passive) |
| Community | Low | Low | Low | Medium | Medium | Communicate (passive) |
| Municipalities | Low | Low | Low | Low | Medium | Communicate (passive) |
| 'Middleman' companies | Low | Low | Low | High | Low | Passive |

Notes: *Latvian Fund for Nature, Ornithology Association, Forest Services Consultancy Centre, and Nature Conservation Agency.
**Parliament, political parties, and Ministry of Agriculture.

## 6 Findings and discussion

Micro-foundations have emerged as an important foundational theme in recent management research. Foss (2010, p.11) offers "an interpretation of what micro-foundations may mean in the context of management research; argue that the interest in micro-foundations has arisen as a consequence of the shortcomings of extent, dominant macro perspectives…" Smith and Carrol (1995, p.20) suggested that much of the micro-foundations research on cooperation "can be applied to the study of cooperation between organizations, which continues to be a major topic of interest and relevance in the present organizational world." 'Micro-foundations' are foundations of something, namely relations between aggregate variables (Foss, 2010).

When it comes to the current empirical study, we have investigated internal and external micro-foundations that underpin the commercial viability of cooperative strategies of the Latvian forest owners. Forest owners' cooperative strategy aims to facilitate more effective management of private forests, more efficient use of timber resources, and better educate of forest owners. The research findings showed that FOCs have opportunities to build their competitive advantage through better exploiting their resources and developing new capabilities through better sensing and seizing external market opportunities to capture more economic rent due to an economy of scale, new technologies and access to the whole value chain.

Two strategies in forest management (cooperative arrangement approach versus an individual competitive approach) have been compared by using the QSPM model. The QSPM overall strategic factors assessment score, SFAS = 5.97 for cooperation strategy over the score for individual approach SFAS = 3.61 can be explained by the possibilities of a cooperative to capitalise the opportunities in private forestry. Therefore, the cooperative strategy is a suitable strategic choice in terms of capitalising external opportunities, external factors assessment score (EFAS) is 3.44, feasible in terms of exploiting FO resources and developing capabilities, internal factors assessment score (IFAS) is 2.53, and acceptable for major stakeholders according to Mendelow (1991) matrix analyses result, which we excluded from paper due to obvious results commented above. Thus, the cooperative arrangement approach in the forest industry is a commercially viable strategic choice.

## 7 Conclusions and implications

While the micro-foundations literature has made some headway in the general strategy literature (Contractor et al., 2019), the analysis of cooperative strategies has been less impacted by it. The paper fills important micro-foundational gaps in the cooperative strategy literature.

### *7.1 Theoretical implication*

Our study contributes to cooperative strategies research by focusing on the micro-foundations of cooperative arrangement, specifically on the motivation of the private forest owner to cooperate. It is important that trust is also strategically noticed antecedents in private forest owners' cooperative arrangement. It correlates with

Jensen-Auvermann et al. (2018) findings in rural cooperative and with Pesämaa et al. (2013) justification that trust is the ability of business cooperatives to respond to perceived uncertainties to cope with risk. Thereafter, we justified Faroque et al. (2017) research findings. They found that inter-firm networking is directly and positively related to business process innovativeness and export performance (Faroque et al., 2017). By pooling resources together, appearing economies of scale that will provide collaborative competitive advantages to seize and to exploit existing home-based and export opportunities. Those, in turn, will increase forest management efficiency due to higher market power and reliable supply chain management which is crucially important for all industrial producers. Therefore, the current paper contributed to the theories on the micro-foundations of strategic choice in cooperative research (Bengtsson et al., 2016). Moreover, our conceptual model of research in Figure 1 might be a guidance for similar research on micro-foundations in different strategic settings. When it comes to the theoretical framework of research, the current research provided the application of the extended SFA model as a tool of the business analysis of the cooperative arrangement processes.

What is more, our paper has contributed to the interest of the Strategy Practice Group of SMS (2019) by answering questions that the group attempts to answer: "what are the micro-foundations of the activities involved in the doing of strategy?" The paper also contributes to the recent scientific discussion in the *Strategic Management Journal* on 'The interplay of competition and cooperation' (Hoffmann et al., 2018). More research will be necessary to refine and further elaborate on our novel findings. Thereby, the paper, being of an exploratory and interpretive raises several opportunities for future research, both in terms of theory development and findings validation. The theoretical framework discussed in the research design and methodology chapter could also be used to generate several hypotheses for further empirical testing using a broader sample and quantitative research methods. The study could also be extended in longitudinal and comparative ways.

### *7.2 Managerial implication*

Raising the popularity of wood energy will add opportunities to FOC that does not exist in individual competitive approach case. Production of wood energy will require new technological knowledge, will require higher bargaining powers to negotiate better conditions of contracts with major heating operators and thus will foster an economy of scale that, in turn, will provide more economic rents to FOC, and consequently, to each FOC member. EU funds for forestry activities development will be also better exploited by a cooperative arrangement approach in comparison with an individual competitive approach. The research findings show that FOC has opportunities to build their competitive advantage through exploiting their resources and better access to the market. The group of FOs with 20–50 ha constitutes 28% of the private forest area which is a very good potential for FOC operations. To conclude, the results of this research proved that there is interest from forest owners to join FOC especially appreciating the *better market access* for their products and *increased income* from forestry and thus facilitate the competitive advantage of Latvian forestry. The research conducted provides was useful information and knowledge obtained for further development of forest owners' cooperation in the light of active discussions on Latvia's position on EU Rural Development Program 2014–2020.

### *7.3 Institutional implication*

On September 2012, the Parliament adopted amendments in the Law on Cooperative Societies. It included the definition of forest cooperatives, defined requirements of equity capital, and stated zero corporate income tax (regular 15%) and other bonuses in future that refer to recognised cooperatives (e.g., with a set min forest area, set in several members, set the limit of one-member contribution to turnover). Such institutional engagement has significantly triggered-off cooperative movements in the Latvian forest industry recently. According to our latest research, there are six forest owners' cooperatives founded in Latvia at the beginning of the 2018 year. Only two of them have today successfully entered forestry services and timber trade business. The development of market restructuring from individual to B2B is characterised by the share of zero euro in 2012 to 3.6 million euro at the beginning of 2018. The two FOC's approximate turnover growth during the last five years is 30%–50%.

## 8 Limitation and future research

Literature is available on cooperation, but since the history and success of cooperation in different countries vary so much, this should be regarded as a limitation to the work. The investigation was conducted to reach an aim within a definite time horizon. The available secondary data allowed making valuable conclusions that were confirmed by the investigation results. Responses to some questions of the questionnaire were not presented in the present paper due to volume limitation, however, they contributed to building a general understanding of the problem. The questionnaire results were communicated to the leaders of local forest owners' organisations and were included in the reports on private forestry development to be conducted by the Latvian Forest Owners' Association.

Having done the research, we experienced several limitations. For instance, an interview the leaders of cooperative could not provide the expected by the authors' amount of information because of the very early stage of FOC operations. Since there were no real examples of FOC operating for a certain time that would allow conducting a more precise study, all the conclusions derived may not be strictly accurate.

When it comes to the future research, a comprehensive study on the psychological factors of forest owners regarding cooperation should be conducted at the questionnaire results indicated the remarkable importance of psychological factors influencing the decision to join FOC. That would enrich *the theoretical implication* of research in terms of the strategic importance of psychological factors of cooperative arrangements, answering questions of what they are, and how to manage them. To provide more value to *managerial implication* to the current research topic, there should be the following activities implemented: study on small properties (1–20 ha) including a survey of forest owners in different groups; study on forest owner's goals as for multiple forest management functions. A representative different forest owner survey would provide a substantially better basis for conclusions about the forest owners' views and interest in joining a cooperative. Regarding *institutional implication*, the most efficient government support tools should be identified and delivered for inclusion in the support activities for the next EU planning up to 2020. Based on the obtained research results a handbook

for developing FOC should be developed. Education programs are welcomed for the potential leaders of FOC.

These set of activities would encourage the existing leaders of local forest owners' associations to transform their organisations into FOC and provide more benefits to the rural communities of Latvia and the EU economy in general.

## References

Abell, P. Felin, T. and Foss, N. (2008) 'Building micro-foundations for the routines, capabilities, and performance links', *Managerial and Decision Economics*, Vol. 29, No. 6, pp.489–502.

Altman, M. (2015) 'Cooperative organizations as an engine of equitable rural economic development', *Journal of Co-operative Organization and Management*, Vol. 3, No. 1, pp.14–23.

Arslan, B. (2018) 'The interplay of competitive and cooperative behavior and differential benefits in alliances', *Strategic Management Journal*, Vol.39, No. 12, pp.3222–3246.

Bengtsson, M. and Kock, S. (1999) 'Cooperation and competition in relationships between competitors in business networks', *Journal of Business and Industrial Marketing*, Vol. 14, No. 3, pp.178–194.

Bengtsson, M., Kock, S., Lundgren-Henriksson, E-L. and Näsholma, H. (2016) 'Coopetition research in theory and practice: growing new theoretical, empirical, and methodological domains', *Industrial Marketing Management*, Vol. 57, pp.4–11.

Birchall, J. (2004) *Cooperatives and the Millennium Development Goals*, pp.5–16, International Labour Office, Geneva.

Birchall, J. (2009) *A Comparative Analysis of Co-operative Sectors in Scotland, Finland, Sweden, and Switzerland*, pp.2–7, Co-operative Development Scotland, Spectrum House.

Bouncen, R.B., Gast, J., Fraus, S. and Boger, M. (2015) 'Coopetition: a systematic review, synthesis, and future research directions', *Review of Management Science*, Vol. 9, No. 3, pp.577–601.

Buxmann, P., Ahsen, A. and Díaz, L.M. (2008) 'Economic evaluation of cooperation scenarios in supply chains', *Journal of Enterprise Information Management*, Vol. 21, No. 3, pp.247–262.

Carinia, C. and Carpitab, M. (2014) 'The impact of the economic crisis on Italian cooperatives in the industrial sector', *Journal of Co-operative Organization and Management*, Vol. 2, No. 1, pp.14–23.

Child, J. and Faulkner, D. (1998) *Strategies of Cooperation: Managing Alliances, Networks, and Joint Ventures*, Oxford University Press, Oxford.

Clegg, J. (2006) 'Rural cooperatives in China: policy and practice', *Journal of Small Business and Enterprise Development*, Vol. 13, No. 2, pp.219–234.

Coleman, J. (1990) *Foundation of Social Theory*, Harvard University Press, Boston.

Confederation of European Forest Owners (2019) [online] http://www.cepf-eu.org/page/norway (accessed 14 June).

Contractor, F., Foss, N., Kundu, S. and Lahiri, S. (2019) 'Viewing global strategy through a micro-foundations' lens', *Global Strategy Journal*, Vol. 9, No. 1, pp.3–18.

Cruikshank, R.A., Auster, E.R., Basir, N.O. and Ruebottom, T. (2015) 'Middle managers' knowledge of strategy: antecedents, cognitive accuracy, and self-awareness', *International Journal of Strategic Change Management*, Vol. 6, No. 1, pp.73–99.

Cygler, J., Sroka, W., Solesvik, M. and Dębkowska, K. (2018) 'Benefits and drawbacks of coopetition: the roles of scope and durability in coopetitive relationships', *Sustainability*, August, Vol. 10, No. 8, pp.2–24.

David, M.E., David, F.R. and David, F.R. (2009) 'The quantitative strategic planning matrix (QSPM) applied to a retail computer store', *The Coastal Business Journal*, Spring, Vol. 8, No. 1, pp.42–52.

Deller, S., Hoyt, A., Hueth, B. and Sundaram-Stukel, R. (2009) *Research on the Economic Impact of Cooperatives*, pp.1–73, University of Wisconsin Center for Cooperatives.

Deming, W.E. (1994) *The New Economics for Industry, Government, Education*, p.225, The MIT Press, Cambridge, MA.

Faroque, A.R., Morrish, S.C. and Ferdous, A.F. (2017) 'Networking, business process innovativeness and export performance: the case of South Asian low-tech industry', *Journal of Business & Industrial Marketing*, Vol. 32, No. 6, pp.864–875.

Federation of Swedish Farmers and Federation of Swedish Family Forest Owners (2019) [online] http://www.cepf-eu.org/sites/default/files/document/Sweden.pdf (accessed 14 June 2018).

Fjortoft, T. and Gjems-Onstad, G. (2004) 'Cooperative law in Norway – time for codification?', *Stockholm Institute for Scandinavian Law 1957–2009*, pp.119–137.

Foss, N.J. (2010) 'Micro-foundations for management research: what, why, and whither?', *Cuadernos de Economía y Dirección de la Empresa*, Vol. 13, No. 42, pp.11–34.

Foss, N.J. (2015) 'Reflection on a decade of microfoundations research', *Revista de Administração*, Vol. 51, No. 1, pp.117–120.

Foss, N.J. and Lindenberg, S. (2013) 'Micro-foundations for strategy: a goal-framing perspective on the drivers of value creation', *The Academy of Management Perspectives*, Vol. 27, No. 2, pp.85–102.

Gates, J. (1998) *The Ownership Solution*, p.380, Penguin, London.

Ghosh, A.K. (2007) 'Cooperative movement and rural development in India', *Social Change*, Vol. 37, No. 3, pp.14–32.

Hardesty, S.D. and Salgia, V.D. (2007) 'Most West Coast agricultural cooperatives are financially competitive', *California Agriculture*, Vol. 61, No. 4, pp.172–176.

Hill, C.W.L. and Jones, G.R. (2008) *Strategic Management: An Integrated Approach*, 8th ed., Houghton Mifflin, Boston.

Hoffmann, W., Lavie, D., Reuer, J.J. and Shipilov, A. (2018) 'The interplay of competition and cooperation', *Strategic Management Journal*, Vol. 39, No. 12, pp.3033–3052.

Hull, B.R. and Ashton, S. (2008) 'Forest cooperatives revisited', *Journal of Forestry*, March, Vol. 106, No. 2, pp.100–105, Society of American Foresters.

International Co-operative Alliance (ICA) (2019) *Cooperative Identity, Values & Principles* [online] https://www.ica.coop/en/cooperatives/cooperative-identity (accessed 12 September 2019).

International Cooperatives' Alliance (ICA) (2019) *Statutes*, pp.1–11.

Jansons, J. (2010) *Privāto mežu potenciālā devuma Latvijas kokrūpniecībai 2011–2015.gada novērtējums*, pp.1–32, Latvijas Valsts mežzinātnes institūts "SILAVA".

Jensen-Auvermann, T., Adams, I. and Doluschitzb, R. (2018) 'Trust – factors that have an impact on the interrelations between members and employees in rural cooperatives', *Journal of Co-operative Organization and Management*, Vol. 6, No. 2, pp.100–110 [online] https://www.sciencedirect.com/science/article/pii/S2213297X17300927 (accessed 25 October).

Johnson, G., Whittington, R. and Scholes, K. (2011) *Exploring Strategy, Text, and Cases*, 9th ed., pp.361–389, Pearson Education Limited, UK.

Lidestav, G. and Arvidsson, A. (2012) 'Member, owner, customer, supplier? The question of perspective on membership and ownership in a private forest owner cooperative', *Global Perspective on Sustainable Forest Management*, Ch. 5, pp.75–94, InTech Europe, Croatia.

Mendelow, A.L. (1991) 'Environmental scanning: the impact of the stakeholder concept', *in Proceedings from the Second International Conference on Information Systems*, Cambridge, MA.

Nielsen, R.P. (1998) 'Cooperative strategy', *Strategic Management Journal*, Vol. 9, No. 5, pp.475–492.

O'Sullivan, A. and Sheffrin, S.M. (2003) *Economics: Principles in Action*, Pearson Prentice Hall, New Jersey.

Olson, M. (2009) *The Logic of Collective Action: Public Goods and the Theory of Groups, Second Printing with Preface and Appendix*, Vol. 124, Harvard University Press, Cambridge, MA.

Oorschot, K., Hoog, J. and Twist, M. (2013) 'The three pillars of the co-operative', *Journal of Co-operative Organization and Management*, Vol. 1, No. 2, pp.64–69.

Pesämaa, O., Pieper, T., Silva, R.V., Black, W.C. and Hair, J.F. (2013) 'Trust and reciprocity in building inter-personal and inter-organizational commitment in small business co-operatives', *Journal of Co-operative Organization and Management*, Vol. 1, No. 2, pp.81–92.

Ridley-Duff, R.J. (2009) 'Cooperative social enterprises: company rules, access to finance and management practice', *Social Enterprise Journal*, Vol. 5, No. 1, pp.50–68 .

Ritala, P. and Hurmelinna-Laukkanen, P. (2013) 'Incremental and radical innovation in coopetition – the role of absorptive capacity and appropriability', *Journal of Product Innovation Management*, Vol. 30, No. 1, pp.154–169.

Ritala, P. and Sainio, L.M. (2014) 'Coopetition for radical innovation: technology, market, and business-model perspective', *Technology Analysis and Strategic Management*, Vol. 26, No. 2, pp.155–169.

Sekaran, U. and Bougie, R. (2018) *Research Methods for Business: A Skill Building Approach*, p.448, Wiley, Hoboken, NJ, USA.

Singh, A.K. and Burhan, M. (2018) 'Configuring dynamic capability architecture for understanding changes', *International Journal of Strategic Change Management*, Vol. 7, No. 2, pp.109–138.

Smith, K.G. and Carrol, S.J. (1995) 'Intra and interorganizational cooperation: towards a research agenda', *Academy of Management Journal*, Vol. 38, No. 1, pp.7–23.

Strategic Management Society (SMS) (2019) *Strategy Practice IG* [online] https://www.strategicmanagement.net/ig-strategy-practice/overview (accessed 15 June 2019).

Sullivan, B.N. and Tang, Y. (2012) 'Small-world networks, absorptive capacity and firm performance: evidence from the US venture capital industry', *International Journal of Strategic Change Management*, Vol. 4, No. 2, pp.149–175.

Velu, C. (2018) *Coopetition and Business Models*, Working Paper, University Cambridge [online] https://cambridgeservicealliance.eng.cam.ac.uk/resources/Downloads/Monthly%20Papers/July2018Paper.pdf (accessed 14 June 2019).

Wilhemsson, E. (2006) *Forest Management Planning for Private Forest Owners*, pp.52–60, Swedish University for Agricultural Sciences.

Xue, J.J., Lu, S.K. and Shi, B. (2018) 'Trust, guanxi, and cooperation: a study on partner opportunism in Chinese joint-venture manufacturing', *Journal of Business & Industrial Marketing*, Vol. 33, No. 1, pp.95–106.

Zemkopības ministrija, Nozares portals (2018) *Lauksaimniecības pakalpojumu kooperatīvi*, pp.1–10 [online] https://www.zm.gov.lv/lauku-attistiba/statiskas-lapas/lauksaimniecibas-pakalpojumu-kooperativi?nid=814#jump (accessed 30 January).