Competitive parity as strategic dimension – little to gain, much to lose

REVIEW ARTICLE

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Abstract

It is essential for firms in the agri-food business to ensure specific product attributes in the long run and to avoid reputational damage. Competitive advantages cannot be achieved with such product attributes; however, they must be ensured to remain competitive in the long run. Searching for literature on competitive parity resulted to be very difficult and literature on competitive parity seems to merely exist in strategic management literature. The question arises as to whether competitive parity is also a strategic dimension to which companies must pay attention in strategic management, especially with regard to the allocation of scarce resources. Since the majority of firms in the agri-food business work together in supply chain networks, another research question arises: is competitive parity also relevant at the network-level? To answer these questions a systematic literature review, which is based on deliberately chosen leading journals in the field of strategic management and chain management, is conducted. Results on the firm-level and the network-level show that there is hardly any literature on competitive parity available. This paper aims to contribute to a better theoretical understanding of competitive parity in strategic management. It develops a theoretical frame of chain management which combines the aspects of competitive parity with those of chain management in the agri-food business. From this, managerial implications for focal firms in the agri-food industry as well as implications for future research in this field should be derived.

Keywords: competitive parity, strategic chain management, supply chain networks, strategic management, resource-based view, relational view, agri-food business

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1. Introduction

In the agri-food business, firms mostly work together with other upstream and downstream players along the value chain in so-called supply chain networks (Bitsch and Hanf, 2022; Hanf and Dautzenberg, 2006). To remain competitive in the long-run, focal firms, i.e. the firms that consumers make responsible for the product quality, have to be able to guarantee specific product attributes (Böcker and Hanf, 2000; Hanf and Hanf, 2007). Meeting these attributes is of great importance since otherwise, a situation could arise which causes great damage to a firm’s reputation. Furthermore, it is necessary to fulfil these product attributes to be able to compete with other focal firms and their respective supply chain networks. Supply chain networks are usually complex and often consist of a large number of suppliers and buyers. Thus, it is not an easy task to manage these chain networks successfully. To fulfil specific attributes along the value chain requires close vertical cooperation and coordination between all organisational units along the value chain (Hanf and Hanf, 2007; Poignée and Schiefer, 2007).

During the last decade, based on changing consumer demands, topics like bio, vegan or sustainable production get more important for producers (Richter and Hanf, 2021). Producers have to be able to fulfil the criteria that allow them to market products with specific product attributes. Using the example of sustainability, one cannot doubt the increasing importance for focal firms. Any business related to farming and farming-related commercial activities is affected, and so are all stages along the value chain from input suppliers, primary production (agricultural producers), merchandisers, processors and retailers.

Chain management literature indicates that there can be made a difference in strategic approaches the management of agribusiness firms can take. Mentzer et al. (2000) distinguish between two types of partnering orientation and the strategic goals of the network. Whereas strategic partnering is rather built on an enduring, long-term inter-firm relationship for achieving strategic goals, operational partnering is a needed, shorter-term relationship to achieve parity with competitors (Mentzer et al., 2000) This indicates that parity has great importance in strategic management. However, traditionally, the focus in strategic management literature is set on the achievement of a competitive advantage, which allows one to outperform competitors and gain above-average profits. Despite the great importance parity seems to have in strategic management, searching for literature on competitive parity resulted to be very difficult and literature on competitive parity seems to merely exist. Thus, the research on competitive parity as a strategic dimension has an exploratory character. This fact has motivated us to take a deeper look at this topic and to answer the following research questions: (a) is parity of strategic importance? And if so, (b) which implications does this have for strategic management? Expanding on the network perspective, the following research question arises: (c) if parity represents a strategic dimension, which implications does this have for parity in strategic chain management?

This paper aims to contribute to a better theoretical understanding of competitive parity in strategic management. It develops a theoretical frame of chain management which combines the aspects of competitive parity with those of chain management in the agri-food business. From this, managerial implications for focal firms in the agri-food industry as well as implications for future research in this field should be derived. The underlying theoretical background, in which the paper is embedded, includes the concept of the resource-based view and relational view. Since the 1990s the resource-based view (RBV) has been one of the dominant theories in strategic management (Acedo et al., 2006). The RBV argues that firms differ in their performance due to firm heterogeneity (Barney, 1991; Peteraf, 1993). From a resource-oriented perspective, it is primarily internal variables that are decisive for the company’s success (Barney, 1991; Wernerfelt, 1984). Both the RBV and the knowledge-based view (as an extension of the RBV) argue that a competitive advantage can be achieved from the combination of resources and competencies possessed and deployed by a single firm, highlighting the importance to keep resources, competencies and knowledge within the boundaries of the firm. Resources, competencies and knowledge can also expand over the firm’s boundaries. The relational

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1 Coordination and cooperation are two facets of collaboration and important means for the management of vertical relationships (Gulati et al., 2005, 2012). Coordination can be understood as the alignment of actions to achieve mutual goals between intentionally chosen partners. Cooperation refers to the alignment of interests between the partners in which the intended scope of the relationship is defined (Gulati et al., 2005).
view, which is complementary to the RBV, integrates the perspective of resources-based theory and relational network theory to explain the competitive strategies of firms (Dyer and Singh, 1998). Accordingly, the sources of competitive advantages emerge from the internal resources owned by a firm and also from the external resources in the relational networks (Arya and Lin, 2007; Dyer and Singh, 1998; Lavie, 2006).

Embedded in this theoretical background, we conduct a systematic literature review for a better understanding of competitive parity. The methodology of the systematic literature review is explained in detail in Section 2. The results of the literature review on ‘competitive parity’ on the firm-level and an interim discussion are presented in Section 3.1 and 3.2, respectively. Based on the results gained in the literature review on the network-level (Section 4.1), a theoretical frame of competitive parity in strategic chain management is developed in Section 4.2. Section 5 presents managerial implications. In Section 6, a short summary is offered.

2. Methodology – a systematic literature review

To review the concept of ‘(competitive) parity’, we used a systematic literature review (Xiao and Watson, 2019) and followed a structured approach2. By reviewing the relevant literature, we gain an overview of the breadth and depth of existing research and can identify gaps. Literature reviews should be valid, reliable and repeatable (Xiao and Watson, 2019). We searched leading3 journals (13 in the strategic management field and five journals focusing on vertical coordination and/or agri-business research4).

The search was not filtered by publication date, as we wanted to be sure to cover all relevant literature, but it was filtered by keywords, focusing on peer-reviewed journal papers, written in English. We used the following keywords for the literature search in the selected journals: parity; competitive parity; strategic parity; maintain parity with competitors; parity with competitors. We scanned the literature for titles, abstracts, and keywords and read relevant literature in whole or in part (i.e. only the introduction and conclusion). We could not apply such strict selection criteria as the authors Cillo et al. (2019) or De Vries et al. (in press) because the number of existing literature was already very small, which was very astonishing for us. Therefore, we decided to fully read and analyse all articles in which competitive parity is mentioned.

Following the systematic literature review in the selected journals, we checked by searching the Google scholar database that we had not missed any substantial already published peer-reviewed literature on this topic. We decided to use Google scholar as it covers a large number of journals from different disciplines. For this search, we used the same set of keywords and did not limit the literature search to specific years of publication. Eight further articles could be found through the meta-search in the Google scholar database that have not been covered in the search in the selected journals5. This confirms our previous approach with the selected journals, but also the approach of expanding the search by a meta-search.

After having removed the duplicates, 28 articles were left. Four articles were excluded because they did not contain any useful information on competitive parity in an operative or strategic management context. Thus, after scanning and reading the articles, 24 articles were left and included in the further analysis (Figure 1).

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2 The authors do not claim completeness in terms of literature review that is provided in this paper.
3 The selection of the leading journals in the field of strategic management and agri-business management was based on the journal ranking of the German Association of Agricultural Economists (GEWISOLA), a business administration and strategic management ranking of the Association of university professors of business administration (Verband der Hochschullehrer für Betriebswirtschaft e.V.) and the ranking on behalf of the ZEW – Leibniz Centre for European Economic Research (ZEW – Leibniz-Zentrum für Europäische Wirtschaftsforschung, Mannheim).
A list of the relevant literature (journal, number of hits, main statements on parity) can be found in Supplementary Table S1 and the results of the literature review on the firm-level are presented in Section 3.1. The results are discussed in the interim discussion (Section 3.2).

### 3. Parity as strategic dimension on the firm-level

#### 3.1 Literature on the firm-level

We only found 22 articles in 16 different journals that provide statements on parity at the firm-level. The period in which the articles were published is 1994-2021 (Supplementary Table S1). This already shows that the total number of articles found in those journals, over 27 years, including all issues that appeared in those journals over the years, is very small. Moreover, as the following results will show, the literature found only shows indications of the role parity plays, but the focus is always on other related areas. This underlines the exploratory nature of this research.

There appear to be few characterisations and explanations of the concept of competitive parity, depending on both the research topic and the researcher’s area of expertise. In many cases, the concept of competitive parity has merely been taken up as a side aspect in the literature related to the competitive advantage. It appeared repeatedly in different contexts, mainly in the context of the RBV framework and VRIO concept⁶ – but always focusing on the competitive advantage – (Barney, 1995; Black and Boal, 1994; Rowe and Barnes, 1998), and has been considered from different points of view. However, it has evolved little over the years. The main objective of this section is not to present a clear and undisputed definition of what competitive parity is from a theoretical perspective, but to present the current state of the literature on this concept at the firm-level.

Resources and capabilities that are controlled by numerous competitors, i.e. that are valuable but common (not rare), are a source of competitive parity (Barney, 1995; Barney and Wright, 1998). These ‘may be

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⁶ Companies try to achieve (sustained) competitive advantage and above normal rents by building resources and capabilities that are rare, valuable, non-substitutable, and difficult to imitate (or organized to capture value) (Barney (1991); Peteraf (1993); Eisenhardt and Martin (2000)). These criteria are known as VRIO-criteria (Barney (1991); Eisenhardt and Martin (2000)).

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**Figure 1.** Step of the search process and number of selected studies in each step.
essential for a firm’s survival.’ (Barney, 1995: p. 52). The literature also gives insights into different aspects of capabilities that are easy to imitate, e.g. quality, service or low-cost capabilities, and fall into the dimension of competitive parity (Slater, 1996). Competitive parity leads (at best) to average or normal performance (Rowe and Barnes, 1998).

The resource base must be relevant to the market to allow the firm to operate in the industry (Ambrosini and Bowman, 2009; Helfat et al., 2007). One of the key questions regarding competitive parity is the access to resources and capabilities needed to achieve or maintain competitive parity (Bowers et al., 2014). Thus, the resource endowment, i.e. the similarity and equality in critical resources and capabilities of firms competing in one industry, contribute to competitive parity (Hull and Covin, 2010). Besides resource endowments (and resource constraints), also the complexity of resources (e.g. if tacit knowledge is involved) influences the possibility to imitate another firm (Lieberman and Asaba, 2006).

As markets are dynamic, firms must be able to develop and anticipate capabilities that are needed in the future to remain competitive and survive in the market (Barney, 1995). Resources or capabilities that served as a competitive advantage in the past have now become necessary for competitive parity (Slater, 1996).

Approaches to achieve or maintain parity include benchmarking key processes against best-in-class companies (Slater, 1996) and to study higher performing firms and imitate all capabilities and resources that are possible to imitate (Barney et al., 2021). This helps even lower performing firms that have competitive disadvantages to achieve strategic parity (Barney, 2001). There are also statements on parity in business imitation literature (Fiegenbaum and Thomas, 1995; Garcia-Pont and Nohria, 2002; Giachetti and Lanzolla, 2016; Lieberman and Asaba, 2006; Mathews, 2002; Pacheco-de-Almeida and Zemsky, 2007; Yoo et al., 2009). Late movers imitate the resource base of first movers. This can be done through imitation, resource transfer or resource substitution (Mathews, 2002). If resources can be substituted and have the same strategic implications, this can lead to competitive parity in competitive markets (Yoo et al., 2009). Similar to this, literature on me-too-entrants, whose products are very alike to those of incumbent firms and offer similar or the same benefits to consumers, deals with the imitation of resources and capabilities (Aronson and Green, 2020; Brander and Spencer, 2022). The imitation products may even secure larger market shares than the previous product launch of the incumbent firm or at least gain average profits.

In the branding and retailing literature, ‘points of parity’ correspond to some kind of minimum requirements that the product needs to fulfil to be perceived by the consumer as a ‘legitimate and credible player’ within the frame of reference (Keller et al., 2002). In other words, they represent elements with basically the same performance or functionality as those of the next best alternative (Anderson et al., 2006). Economic and functional customer value propositions are more likely to be points of parity, whereas emotional and social elements rather serve for differentiation (Rintamäki et al., 2007).

In a more recent article, Gerhart and Feng (2021) advocate addressing more in-depth how firms can gain and maintain competitive parity.

3.2 Interim discussion

The literature review on the firm-level has shown that there exists only a small number of published peer-reviewed articles containing information about competitive parity. In particular, considering the number of journals and period of time covered, this is not much. It indicates that this research topic has not received much attention so far.

However, the literature review on the firm-level leads to some results that are relevant for further discussion: competitive parity should be actively addressed in strategic management to avoid a competitive disadvantage (see Rowe and Barnes, 1998). Barney (1995) indicates that parity has a strategic dimension, as ‘common, but valuable resources (...) and capabilities may be essential for a firm’s survival’ (Barney, 1995). Even if the
statement is very implicit, strategic importance can be derived. Thus, a mid- to long-term plan is needed to achieve parity. This allows the firm to operate in the industry. According to the RBV framework and VRIO concept, resources and capabilities that are valuable to the consumer are required to achieve competitive parity. Thus, we conclude that it is necessary to develop and deploy specific resources and capabilities to achieve parity. It is not enough to simply possess resources, the firm must also be able to deploy them in the best possible way (Penrose, 2009). This, in turn, implies for competitive parity that firms need to actively address which resources and capabilities they have available to achieve a competitive advantage and which ones they deploy to achieve competitive parity (resource endowments and trade-off). Based on this, we conclude that parity is a strategic dimension that needs to be considered at the firm-level.

Following the argumentation of the RBV and dynamic capabilities, tangible and intangible resources such as skills and capabilities can evolve and become more or less valuable for the customer. Markets are dynamic and requirements can change over time, thus it is important that firms steadily work on and develop their capabilities (Slater, 1996). Depending on the firm’s ability to develop its capabilities, weaknesses can be converted from weaknesses to parity or strength over time (Sirmon et al., 2010). These considerations imply a need to extend the VRIO-framework proposed by Barney (1995), which suggests that competitive outcomes are staggered. There are grey areas in which it is not possible to determine whether the strategic dimension is a competitive advantage or competitive parity. This is illustrated by the following example: so far, there are no uniform certifications and standards for sustainably produced products in the agri-food business. There are different labels, which set different priorities in their certification, such as nature conservation, a fair living and good working conditions for farm workers and producers, and so on. In the case of labels that are not well established, may still be able to use them to differentiate within the industry to some extent to gain a competitive advantage. However, other focal firms can also be certified or operate sustainably and communicate this accordingly. Therefore, this would rather indicate competitive parity. Over time, certification can become more and more of a standard and, for example, a requirement for being listed in food retail. As the product attribute becomes a standard, focal firms would intend to reach competitive parity, i.e. it would represent an intended strategic dimension, when referring to the framework of intended, emergent and realized strategy of Mintzberg (1973).

Therefore, we propose that there is a continuum from the competitive disadvantage (weakness) on one side of the continuum to a competitive advantage (strength) on the other side of the continuum (also see Sirmon et al., 2010). Competitive parity is situated between the two ends of the continuum. If a firm does not possess a particular skill that is needed to meet a particular criterion which would be valuable for the customer, this is not necessarily an immediate exclusion criterion for the consumer but leads to a competitive disadvantage for the respective firm.

Not only the pure state of competitive parity and competitive advantage as a status quo is addressed but also the underlying strands of strategic action. Whereas the dimensions competitive parity and competitive advantage are intended strategic dimensions, a competitive disadvantage also represents a competitive dimension, but this is not intended. All three dimensions, however, provide the basis for strategic actions. If a competitive disadvantage is a current state, according to imitation literature this should be overcome by imitating competitors to achieve competitive parity. Barney et al. (2021) mention that low performance firms can study and imitate the sources of success of higher performing firms. From this it can be derived that being a late mover may be sufficient to succeed in the market (also see: me-too-entry). This again reflects the relevance of competitive parity in strategic management and competitive strategy research.

Two main conclusions can be drawn from the results of the literature review on the firm-level. First, parity is of strategic relevance on the level of a single company. In the context of competitive strategies, parity represents a strategic dimension. Second, despite the importance of parity for the strategic management of firms, there is little literature on this construct. Besides literature being based on the RBV framework and VRIO concept, few literature was also found in the area of business imitation and branding (‘points of parity’). This underlines the exploratory character of this research.
From the various approaches and explanations presented so far on competitive parity, it is possible to derive some general features that the theoretical construct of competitive parity embraces. Table 1 summarises the main finding from the literature review on the firm-level and gives an overview of the similarities and differences between the intended competitive dimensions on the firm-level. Whereas the competitive advantage is based on organizational resources that are inimitable and organized to capture value, achieving an above normal outcome, competitive parity is based on resources that can be possessed and deployed by other firms as well, i.e. imitable resources. The outcome of competitive parity is normal or average and allows the firm to operate in the industry. Both dimensions are intended outcomes and of strategic nature; whereas the competitive advantage serves to realise above-normal rents and receive price premiums, parity rather needs to be achieved to remain competitive and to ensure its long-term existence in the market.

It can be concluded that – up to date – competitive parity is only included to a very small extent in strategic management literature. It becomes evident, that there is no clear definition of competitive parity. This concept, however, deserves a proper place in the literature and needs to find its way into the strategic planning process. This indicates that competitive parity also needs to be integrated into the collective strategy of a strategic network. Thus, it is necessary to take a closer look at existing literature on competitive parity on the network-level in general and in the context of chain management.

4. Parity as a strategic dimension on the network-level

As already mentioned in the introduction, many companies in the agri-food industry have established vertically cooperating systems (so-called supply chain networks) to guarantee the quality and quantity of products. Inter-firm networks correspond to a ‘set of two or more connected business relationships’ (Anderson et al., 1994). Networks are long-term relationships (of power and trust) through which organizations exchange influence and resources (Thorelli, 1986). The inter-organisational links have strategic significance for the participating actors (Gulati et al., 2000). Strategic networks are usually managed by the focal firm implementing a collective strategy, which addresses mechanisms to overcome problems of cooperation and coordination (Hanf and Dautzenberg, 2006). Partnering strategies (to align the interests of network members) and supply chain management strategies (to align the actions of network members) are derived from the collective strategy and contain elements on three levels: the network, dyadic and firm level (Hanf and Dautzenberg, 2006). Additionally, the personal level is suggested as a fourth level as interpersonal relationships and individual positions influence inter-organisational relationships and their outcomes (Hanf and Dautzenberg, 2006; Lazzarini et al., 2001).

The relational view, which builds on and is complementary to the RBV, combines aspects of the RBV and relational network theory (Dyer and Singh, 1998). Based on the relational view, the focal firm and the network members contribute their capabilities and resources to achieve a competitive advantage. As firms cooperate in networks, many resources are embedded in networks, which can be described as ‘network resources’ (Gulati, 1999). Also, dynamic capabilities are needed as firms in the agri-food business steadily have to adapt to changing consumer demands. Especially credence attributes, i.e. attributes that consumers

<table>
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<tr>
<th>Table 1. Contrasting the intended competitive dimensions: competitive advantage versus competitive parity.</th>
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<tr>
<td><strong>Competitive advantage</strong></td>
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<tr>
<td>Organizational resources needed</td>
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<td>Performance outcome</td>
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<td>Time spans</td>
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<td>Objectives</td>
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are not able to fully verify even after purchase, are of temporary importance. Producers have to guarantee credence attributes, otherwise, consumers’ confidence will be lost (Hanf and Andreä, 2005). Following this argumentation, the strategic importance of credence attributes differs depending on how critical the situation is (i.e. if there is a scandal or any other kind of reproach on a societal level, e.g. greenwashing\(^7\)). The value chain cannot easily be changed in the short term in such critical situations, hence it is crucial that the focal company is able to guarantee and fulfil minimum requirements even in times when there is no scandal or reproach, i.e. that competitive parity is maintained at the network-level.

4.1 Literature on the network-level

We could find a couple of articles dealing with competitive parity at the network-level. Main statements were made by Mentzer et al. (2000) and Mentzer et al. (2001). The literature of other authors builds mainly on Mentzer et al. (2000), who consider competitive parity more as part of operative chain management and extend this view to competitive parity as part of strategic chain management.

- **Parity in operative chain management**

Mentzer et al. (2000) address the construct of parity in the context of partnering orientation and the strategic goals of the network. According to Mentzer et al. (2001) partnering can be based on two different orientations, which differ in their strategic objectives. The first type of partnering orientation (strategic partnering) is rather built on an enduring, long-term inter-firm relationship for achieving strategic goals, which is also beneficial to customers and partners. Further, the authors suggest that ‘strategic partnering includes an orientation to view the partner as an extension of their own firm, involving in long term strategic initiatives’ (p. 552). The second type of partnering orientation (operational partnering) is a needed, shorter-term relationship to achieve parity with competitors (Mentzer et al., 2000). This requires shorter time spans and fewer organizational resources, which means that it is easier to implement and reverse (Mentzer et al., 2000). The operational partnering strategy thus aims to improve operational efficiency and effectiveness. In this orientation, ‘each partner does not perceive the other as an extension of its own firm’ (p. 552).

Based on Mentzer et al. (2001), Table 2 summarises the main characteristics of the different partnering orientations that have an impact on the competitive dimension pursued by the partnership. The authors discuss competitive parity solely from an operational perspective.

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\(^7\) Greenwashing is when a company pretends to be environmentally conscious for marketing purposes, but in reality, makes no significant effort towards sustainability (Delmas and Burbano, 2011; Kim et al., 2021).

**Table 2. Partnering orientation according to Mentzer et al. (2000).**

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<th>Strategic partnering</th>
<th>Operational partnering</th>
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<tbody>
<tr>
<td>Organizational resources needed</td>
<td>More</td>
<td>Fewer</td>
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<tr>
<td>Effort for implementation and reversion</td>
<td>Higher</td>
<td>Lower</td>
</tr>
<tr>
<td>Time spans</td>
<td>Long-term</td>
<td>Short-term</td>
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<tr>
<td>Connectedness between partners</td>
<td>Viewing the partner as extension of the firm</td>
<td>Not viewing the partner as extension of the firm</td>
</tr>
<tr>
<td>Objectives</td>
<td>Improving or dramatically changing the company’s competitive position as a strategic achievement</td>
<td>Efficiency and effectiveness</td>
</tr>
<tr>
<td>Strategic dimension</td>
<td>Competitive advantage</td>
<td>Competitive parity</td>
</tr>
</tbody>
</table>
Parity in strategic chain management

Taking up the idea of Mentzer et al. (2000) several articles extended the original setting of operational management to a strategic setting which is outlined in the following paragraphs.

Based on the work of Das and Teng (2001), Hanf and Pieniadz (2007) suppose that trust and control are inseparably interlinked with risk perception. According to the authors, in strategic partnering, the minimization of risks in performance (i.e. quality output) and relational risks is more important than in operational partnering. The authors hypothesize that due to the risk-minimization objective, the control intensity and costs will be higher in strategic partnering than in operational partnering. It is also argued that control-based agreements will be increasingly replaced by trust-based agreements as strategic partnering develops (Hanf and Pieniadz, 2007).

Whereas partnering strategies deal with goal alignment, chain management strategies deal with goal achievement (Gagalyuk, 2012). From the overall collective strategy, both partnering and supply chain management strategies have to be derived (Hanf and Dautzenberg, 2006). In a strategic network in which a focal firm is responsible for the correctness of product attributes, a collective strategy is usually goal-oriented (Gagalyuk et al., 2013).

According to Hanf and Hanf (2007), focal firms should distinguish between operative and strategic quality management (also see: Hanf and Pieniadz, 2007), which Gagalyuk (2012) refers to as parity and advantage chain management (p. 142).

Operative (or parity) chain management can be used to reach a cost advantage and, at the same time, parity with competitors in terms of quality. For this approach, the operational partnering strategy is applied. Consumers, however, are not willing to pay for standard products or products that fulfil basic quality requirements. Therefore, the goal is to maximize efficiency and effectiveness to minimize costs (Hanf and Hanf, 2007).

Strategic (or advantage) chain management also needs to fulfil the basic standards of food safety. When additional product attributes and standards (beyond the basic standards) are met, a competitive advantage in terms of quality can be achieved. Consumers will be willing to pay a price premium if they perceive additional value delivered by the product. Hanf and Hanf (2007) propose that especially with regard to credence attributes such additional value propositions can be created. Further, the authors state that the strategic partnering concept is difficult to imitate and the benefits perceived based on strategic quality management are exclusive to the members of the particular ‘supply chain network’.

A collective strategy has to be developed and implemented by the focal company to achieve parity and advantage chain management and to secure the demanded quality requirements. Gagalyuk (2012) points out, that even for a single product it might be necessary to implement both, parity and advantage chain management (p. 142). For certain product components, parity chain management will be implemented to secure basic quality standards. At the same time, advantage chain management will be implemented for other product components, especially if these are critical inputs for the final product or if they include experience or credence attributes. Gagalyuk (2012) proposes that for parity chain management it is sufficient to pay attention to the firm-level goals of the related parties in the ‘supply chain network’, whereas for advantage chain management it is vital to consider the network-level and firm-level goals simultaneously (p. 142).

The parity approach can be also considered as prerequisites or ‘minimum requirements’ that have to be met to market the products successfully. For example, retailers require certain certificates from suppliers to be able to assure credence attributes (e.g. food safety, sustainably produced, organic or vegan) to the final consumer. Already established inter-firm food quality management systems like QS or IFS address food safety and have an impact on the consumer’s risk perception (Hanf and Hanf, 2007). Such systems are implemented due to food safety scares seek to reduce the safety risks of food consumption. Such systems are rather standard
approaches to create history and operation transparency and can be seen as ‘minimum requirement’. For organic produced food or wine, different certification systems are available. In the European Union, the organic logo should give a ‘coherent visual identity to organic products produced in the EU’ (European Commission, 2022). Authorised control agencies or bodies can certify products as organic. Furthermore, there are numerous standards for private organic farming associations (in Germany e.g. Bioland, Demeter and Naturland). Their standards must comply with the legal EU organic regulation in addition to their own, often more strict standards. Generally, these systems do not lead to a competitive advantage as usually many firms make use of such systems. This shows that for specific product attributes (including credence attributes) minimum requirements need to be met and efforts in terms of investments of resources and capabilities must be made to achieve these requirements.

4.2 Theoretical frame of competitive parity in strategic chain management

The insight into the existing literature on the concept of competitive parity both at the firm- and network-level provides a basis for further considerations on competitive parity in chain management and allows us to derive a theoretical frame of parity in strategic chain management. Two core, superordinate findings could be obtained from the literature review. One of the main findings is that the search for literature without limitation in terms of time period shows that the concept of competitive parity was only taken up as a secondary aspect. This applies to the literature on the firm- and network-level. Over the years, competitive parity has been repeatedly mentioned but never discussed in depth (first articles from Barney, 1995 and Black and Boal, 1994; most recent articles from Barney et al., 2021 and Gerhart and Feng, 2021). Therefore, this research has a strong exploratory character. The second main finding is that competitive parity needs to be considered as a strategic dimension. It is important to have explicit strategies for resources and capabilities that are needed to achieve and maintain competitive parity. As it is not enough only to possess valuable resources and capabilities, firms face a trade-off in deploying their limited resources and capabilities to achieve a competitive advantage or competitive parity. Expanding this to the relational view, which builds on the RBV, this is not only valid for the firm-level, but needs to be applied to the network-level. In the context of chain management in the agri-food business, this means that the focal firm of the ‘supply chain network’ needs to pursue strategies to achieve competitive parity. Parity can only be achieved if the firm/network has access to the specific resources and capabilities needed to achieve competitive parity.

From the literature we derive that the deployment of resources differs between both strategic dimensions: fewer resources are needed to reach competitive parity for a certain product attribute than if a competitive advantage should be realized. However, if the firm/network cannot achieve or maintain the average level of its competitors, the demand for the focal firm’s product will decline and the firm/network has a competitive disadvantage. Network management is a very comprehensive and difficult task. As different stages along the supply chain are involved, typically a large number of actors (network members) is involved, too. Therefore, the focal firm needs to find a trait between short- and long-term objectives. In the long-term measures have to be taken to support consumers’ trust and the firm’s or network’s reputation. In the short-term, however, the network must also be able to adapt to changing consumer demands. The focal firm should be aware that the coordination of the network requires (limited) resources and contains opportunity costs. Accordingly, product components with their necessary attributes need to be consciously selected and the chain managed accordingly.

We do agree with Mentzer et al. (2000) that fewer organisational resources may be needed to achieve parity. However, we further argue based on Hanf and Hanf (2007), who add a strategic dimension to the operational perspective of Mentzer et al. (2000), that strategic chain management is also needed to fulfill specific credence attributes, such as the basic standards on food safety, organic or sustainably produced food items. Hence, it is necessary to take a mid- to long-term approach, i.e. to pursue a strategy, to achieve competitive parity. The collective strategy of a supply chain network is usually goal-oriented (Gagalyuk et al., 2013). Thus,

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8 For more information on history, operations, and strategic transparency, see Theuvsen (2004).
parity (in terms of specific product components and their attributes) needs to be part of the goal formulation and actively addressed in strategic chain management.

Gulati et al. (2005) showed that two important means to manage vertical relationships to realise the strategic objectives of the focal firm are cooperation and coordination. Potential factors that influence the cooperation and coordination in supply chain networks include the availability of resources and capabilities (based on the RBV and relational view), power and trust mechanisms (Bachmann, 2001; Belaya and Hanf, 2012; Belaya and Hanf, 2013; Belaya et al., 2009; Bitsch and Hanf, 2022; Gagalyuk et al., 2013; Ireland and Webb, 2007; Priesmeyer et al., 2012; Thorelli, 1986; Xhoxhi et al., 2022) and governance (Williamson, 1979).

According to Williamson (1979), the governance structure of transactions depends on the level of uncertainty in the transaction and the threat of opportunism, asset specificity and the frequency of recurring transactions. Uncertainty refers to the risks that may occur in a market exchange. The rise in environmental uncertainty will go together with an increase in transaction costs, such as information acquisition, supervision and bargaining costs. The threat of opportunism occurs due to human involvement and information asymmetries in transactions. It can lead to higher transaction costs or the termination of contracts. Different governance mechanisms can be used to reduce the threat of opportunism. Asset specificity is divided into site, physical asset, and human asset specificity. Asset-specific investments cannot be redeployed if a contract terminates. Consequently, the termination of the transaction will result in a loss. The more often transactions take place, i.e. the higher the frequency of transactions, the higher the relative administrative and bargaining costs.

Based on the transaction cost perspective and vertical coordination, it can be assumed that the more important the resource or capability is for the firm to reach a competitive advantage, the more likely it is that the firm works vertically integrated and chooses the decision to ‘make’ the product itself. If the aim is to achieve competitive parity and it is a critical attribute as the reputation of the focal firm can be influenced strongly, the chosen governance mechanism will be a hybrid form, where the buyer (focal firm) can still influence the product quality through contracting, incentives and control mechanisms. In hybrid forms, a different set of resources is necessary (i.e. the capability to monitor and control the contracted party). If only basic product attributes have to be fulfilled, it is sufficient to purchase the product on the spot market. Again, the logic of Williamson (1979) applies: the more specific the asset and the higher the uncertainty and threat of opportunism, the more the focal firm will tend towards vertical coordination and integration.

Overall, we conclude that it is essential to integrate competitive parity in the collective strategy of the network. The focal firm needs to implement cooperation and coordination mechanisms to overcome problems of cooperation and coordination and to achieve competitive parity. Certification schemes can be useful to safeguard product characteristics. Power and trust constructs influence the long-term relationships in networks (Thorelli, 1986) and also cooperation and coordination of the focal firm and network members (Ireland and Webb, 2007). In line with the argumentation of the RBV and relational view, the availability of resources and capabilities possibly influence cooperation and coordination as well. Furthermore, based on the argumentation of Williamson (1979) the underlying governance mechanism also influences cooperation and coordination.

Our underlying assumption based on what we have learnt from the theory is that depending on which competitive dimension is intended, there is a different composition of the various influencing factors/coordination and cooperation mechanisms.

While there is a small body of literature on competitive parity as a strategic dimension on the network-level, previous research indicates that parity should be considered an essential part of strategy formulation. Figure 2 illustrates the basic framework of parity in strategic chain management. It is still at an early stage and shows the explorative character of the research. The framework should serve as a basis for future research.
5. Managerial implications

To fulfill specific product attributes is necessary to reach or maintain competitive parity and avoid competitive disadvantages or a loss of reputation. Therefore, managers must plan very carefully where to invest resources and capabilities. For the management of focal firms in the agri-food business, this means, that they need to be very clear about the product attributes, which will lead to above normal profits, and those, which will lead to normal profits, but allow them to compete with other focal firms that are also able to offer products with certain product characteristics. In this case, the firm has neither an advantage nor a disadvantage over peers. That is, firms that achieve competitive parity perform equally well as competitors or the industry average. Competitive parity is important in strategic management on the firm-level because it allows the firm to use its resources very consciously. This means, that the firm can use more and other resources for areas where they want to achieve or maintain a competitive advantage and avoid overspending resources on areas where they want to achieve or maintain competitive parity without moving to a competitive disadvantage. The Strategic Management Journal has even recently had a call for papers for a special issue on ‘Resource Allocation and Strategic Management’ (Lovallo et al., 2021). The guest editors make very clear why resource allocation is a fundamental element of strategic management and emphasize that the topic is remarkably understudied.

It is crucial to continually examine how the firm’s business is doing, to set up and pursue a strategic plan, and allow to make minor adjustments along the way. The management of focal firms should constantly learn about developments within their industry to be able to adapt and adjust processes which help them to maintain competitive parity. Furthermore, they need to try to anticipate such developments to plan and deploy their limited resources and capabilities accordingly.

Managers need to be aware of the topic of competitive parity to be able to take specific measures on the firm-level and network-level when working in vertically coordinated value chains. In chain management, problems of cooperation and problems of coordination can occur. As Gulati et al. (2005) conclude, even though cooperation may be achieved, i.e. the interests of the individual network members are aligned, coordination problems may persist. In the previous section, we derived a theoretical framework of competitive parity in strategic chain management, which can be used as a basis for considerations on how to manage the supply chain network to reach specific intended competitive dimensions on the network-level. Power, trust, resources, capabilities and governance can be potential influencing factors that will help to align the interests or to align the actions of the network members. The single influencing factors can be operationalized to

![Figure 2. Framework of competitive parity in strategic chain management.](image-url)
make measurement possible. According to Blomqvist (1997), trust, for example, can be further subdivided into (1) the capacity to keep promises, (2) the capacity to show commitment to the business relationship between two or more parties, and (3) mutual confidence that no party will exploit the other’s vulnerability. For each of these components, managers should then think about potential ways how to influence the business relationship to meet specific product attributes in the long run. This is particularly important for credence attributes (e.g. sustainable production) where it is difficult or impossible not only for consumers but also for the focal firms (retailers or producers) to verify that all previous steps have been carried out appropriately to meet certain requirements.

6. Summary

As consumer demands are increasing, modern strategic management needs to include considerations of product attributes, that need to be guaranteed to avoid competitive disadvantages. In markets with an overall high-quality level, most product attributes are no longer sufficient to differentiate from competitors and achieve a competitive advantage. Consequently, it can be derived that producers need to achieve or maintain parity with competitors in terms of certain product characteristics to remain competitive.

Despite its importance, competitive parity mainly exists in strategic management literature. A systematic literature review on competitive parity was conducted on the firm- and network-level. The literature on the firm-level had two major outcomes: first, parity is of strategic relevance on the level of a single firm. Thus, parity has implications for strategic management and represents a strategic dimension. Second, despite the importance of parity for the strategic management of firms, there is only little literature on this construct. Overall, over 27 years only 22 articles could be found in the selected journals, expanded by the meta-search in Google Scholar. This underlines the exploratory character of this research. However, some general features of competitive parity could be derived (Table 1). Competitive parity is sought when a firm imitates a competitor rather than leading an industry. For example, a firm closely copies competitors’ products and services without the prospect of outperforming the competition to gain a competitive advantage. Competitive parity is where businesses achieve standard or average results compared to others in their industry. It is important to fulfil certain product attributes or services to remain competitive in the long run. To realize this, a mid- to long term plan is needed. Thereby focal firms in the agri-food industry attempt to achieve the same level of performance as a competitor or the industry average.

Also, on the network-level only very little literature could be found. Several authors took up the idea of Mentzer et al. (2000) and extended the original setting of operational management to a strategic setting. The results contribute to a better theoretical understanding of competitive parity. Based on the results and argumentative discussion of the results, a theoretical frame of competitive parity in strategic chain management could be derived (Section 4.2). Parity is of major importance for focal firms as it has different strategic implications than the competitive advantage. Depending on which competitive dimension is intended (advantage or parity), we assume that there is a different composition of the various influencing factors (power, trust, resources, capabilities, governance) and coordination and cooperation mechanisms. In strategic parity chain management long-term measures that contribute to achieving a cost advantage while ensuring parity for specific product attributes need to be implemented.

The results of this literature review clearly show the importance for managers of agri-food firms to be aware of the area in which it is important to achieve and maintain competitive parity. The theoretical frame can serve as a base for measures to align interests (to solve problems of cooperation) and to align actions (to solve problems of coordination) of network members. Of course, these need to be investigated more in-depth by research scholars on a theoretical and empirical (exploratory) basis. It would be also important to investigate (1) if these factors do influence strategic parity chain management; and (2) which of the influencing factors (or measures) contribute more strongly to the achievement of competitive advantages and which ones serve to achieve and maintain competitive parity.
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Supplementary material

Supplementary material can be found online at https://doi.org/10.22434/IFAMR2022.0101.

Table S1. Relevant literature (journal, number of hits, main statements on parity).

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