

# Essays on Co-operatives' Idiosyncrasies: Structure, Performance, and Membership



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# **Essays on Co-operatives' Idiosyncrasies: Structure, Performance, and Membership**

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## **Thesis**

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# Table of contents

<b>Chapter 1</b>	General introduction	<b>1</b>
<b>Chapter 2</b>	Co-ops' organizational restructuring, strategic attributes, and performance	<b>13</b>
<b>Chapter 3</b>	Harnessing a "currency matrix" for performance measurement in co-ops: A multi-phased study	<b>51</b>
<b>Chapter 4a</b>	Developing an instrument to detect member-customer ostracism in co-ops	<b>91</b>
<b>Chapter 4b</b>	Assessing co-op ostracism's influence on relational exchange outcomes and counterpoising its relationship-poisoning effects	<b>121</b>
<b>Chapter 5</b>	General discussion	<b>147</b>
	Appendix	<b>159</b>
	Bibliography	<b>176</b>
	Summary	<b>214</b>
	Acknowledgements	<b>218</b>
	About the author	<b>222</b>



# CHAPTER 1

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## General Introduction

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## THE BRIGHT IMPACT OF CO-OPERATIVES VIS-A-VIS THEIR OBSCURE IDIOSYNCRASIES

In his message for the “International Day of Co-operatives” in 2010, former United Nations (UN) Secretary-General Ban-Ki Moon stated that “Co-operatives are a reminder to the international community that it is possible to pursue both economic viability and social responsibility” (UN, 2010). Despite the recent global recession, the vast majority of co-operatives (co-ops) all over the world continue to make a noteworthy economic and social impact (Birchall, 2011; McKinsey & Company, 2012; World Co-operative Monitor, 2017). Strikingly, one in every six people on earth is a member of any of the three million co-ops, which in turn provide employment for 10% of the working population and generate more than 2.16 trillion US\$ in turnover (CICOPA, 2017). Actually, the distinct member-owned, values-based, and people-centered business model of co-ops has persistently been adept at combining a social mission with economic goals, while creating superior value for its member-users and benefiting society at large (Brown and Novkovic, 2015; Ernst & Young, 2012). Moreover, to date, co-ops remain the only form of enterprise that has an internationally agreed ethical code of values (ICA, 2015; Puusa et al., 2013). Not surprisingly, global co-op leadership (i.e., the International Co-operative Alliance - ICA) aspires to make it the “preferred business model by 2020” (ICA, 2013). In literature, there is some renewed interest in the study of co-ops (Iliopoulos et al., 2016; Jussila, 2013), albeit not in major business disciplines like management, marketing, economics, or operational research.

Of course, there are plenty of academic studies and policy reports on co-op issues (Bijman et al., 2012; Chaddad and Cook, 2004; Cook and Iliopoulos, 2016; Soboh et al., 2009, Van Herck, 2014). Also, numerous studies have documented the merits and deficiencies of the co-op model (Beverland, 2007; Birchall, 2013; Borgen, 2011; Cook, 1995; Nilsson, 2001; Sexton and Iskow, 1988).

However, some co-op “idiosyncrasies”<sup>1</sup> remain puzzling or poorly understood, as scholars, practitioners, and policy-makers often disregard that co-ops are the “enfants terribles” of economics (Levi and Davis, 2008). As such, they constitute the only member-based organizational form consistently encouraging a combination of economy and civil society, and steadily aiming to strike a socio-economic balance (Foreman and Whetten, 2002; Novkovic, 2008). Notably, extant research has repeatedly neglected to accurately address the idiosyncratic nature of co-ops when examining their performance, typically adopting a single-objective angle and habitually omitting the social-member perspective (Cadot and Ugaglia, 2018; Franken and Cook, 2015; Soboh et al., 2009). In fact, the social component of membership has attracted limited attention in general (Bhuyan, 2007; Cechin et al., 2013; Kalogeras et al. 2009), despite the near consensus in the literature that the ability to align the co-op’s purpose with the different needs of its members is vital to the sustainability of the organization itself (Fulton, 1995; Mazzarol et al., 2014; Mellor, 2009). At the same time, even though co-ops are universally treated as a fundamentally unique form of enterprise in organizational terms too (e.g., ownership, governance) (Cook and Chaddad, 2004; Hansmann, 1996; Iliopoulos, 2014; Grashuis and Cook, 2017; USDA, 1987; Vitaliano, 1983), few studies have examined the relationship between co-op organizational attributes and features of mainstream businesses (e.g., strategic features like market- and brand-oriented strategies) (Grashuis, 2017; Hardesty, 2005; Kyriakopoulos et al., 2004). Taken together, these knowledge gaps also persist because co-ops have been largely overlooked by literature in business disciplines, particularly in management and marketing. In other words, in spite of their remarkable business-social impact, their growing awareness among policymakers, their acknowledged ethical premises, and the renewed interest in specialized (co-op) literature, co-ops and their particularities remain obscured in

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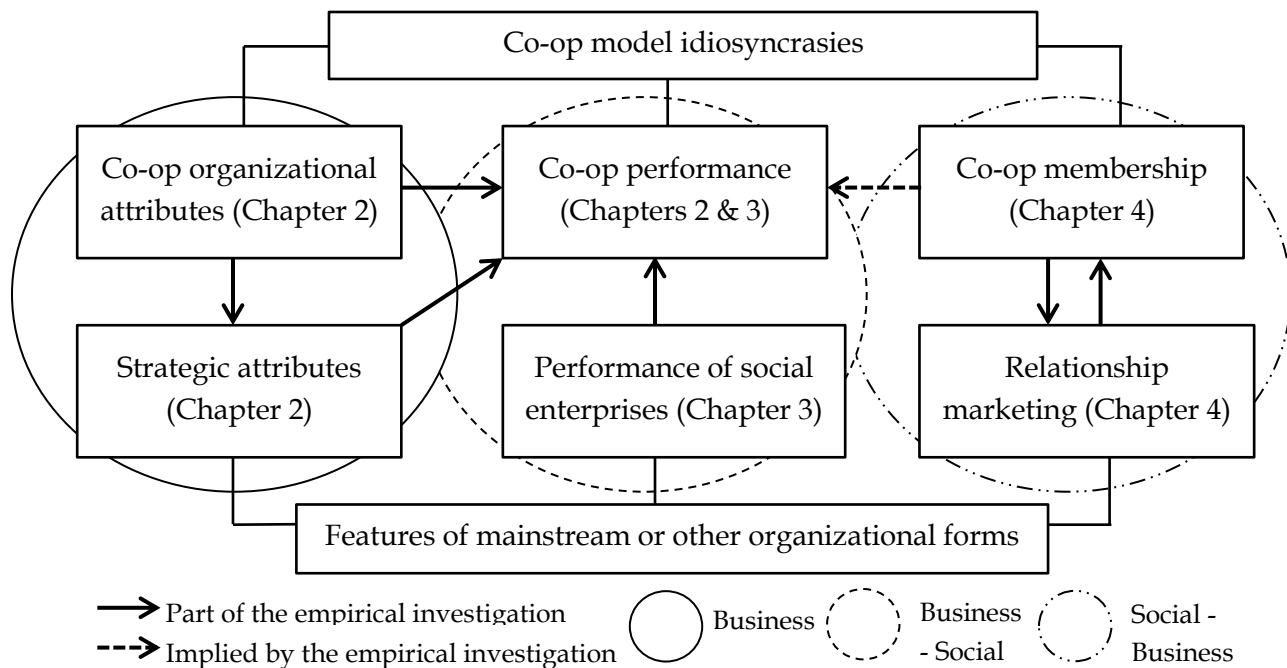
<sup>1</sup> The term “idiosyncrasy” is of Greek origin, and its original meaning is the ‘physical constitution peculiar to an individual’. We employ one of its modern meanings in English (and uses in the academic literature), namely the ‘distinctive or peculiar features or characteristics of something’.

business-related research (ICA, 2015). Hence, the need to shed light on co-op idiosyncrasies and confront them with generic business features is pertinent. In this dissertation, we aim to illuminate such co-op idiosyncrasies through a series of empirical essays.

## **DISSERTATION OUTLOOKS**

This dissertation assembles four empirical essays that revolve around co-op idiosyncrasies. The primary link between these essays is the focus on analyzing co-op specific issues that condition co-op viability, but also on countering them with business features ingrained in conventional or other forms of enterprise. Specifically, in Chapter 2 we explore the influence of idiomorphic co-op organizational attributes on co-op performance and also on mainstream strategic attributes (market and brand orientation). We further examine the influence of the latter on performance. In Chapter 3, we set to consolidate empirical research on co-op performance and provide a dashboard that overcomes isomorphic tendencies (towards conventional businesses) and, instead, reflects co-op specificities. That is, we acknowledge the need to account for multiple performance objectives and pay equal attention to the business and social perspectives. In addition, we integrate findings on a different, albeit related, organizational form that naturally amalgams business and social goals too, namely social enterprises. In Chapter 4, triggered by the inherent relational advantage of the co-op model (i.e., the proximity to members), we explore the social environment of co-ops and investigate a membership-related co-op peril grounded in social behavior (i.e., ostracism). We accept that co-op success also rests on relational assets like member-customer loyalty and adopt a co-op member-customer perspective. We concentrate on understanding and measuring co-op ostracism's impact on crucial relational exchange outcomes, thereby drawing from and also informing established relationship marketing knowledge. Chapter 4 is divided into two sub-chapters. The first is devoted to the exploration

of ostracism and the development of a measurement tool. The second is focused on measuring ostracism's influence on critical membership outcomes as well as on providing co-ops with a mechanism to cope with ostracism (a coping strategy) (see also Table 1.1). Figure 1.1 offers an overview of the core dissertation components in one comprehensive framework.



**Figure 1.1 - Dissertation framework**

A second link between the chapters is that they revolve around business and social aspects too (see Figure 1.1). Social aspects (e.g., community development, employee welfare) are in general drawing attention today as firms, under growing pressure to spur positive social change, increasingly seek to reconnect with the society on top of generating wealth (Kim et al., 2018; Ramus and Vacaro, 2017). Still, traditional business organizations keep social value creation at the periphery of their functioning (Battilana and Lee 2014), whereas co-ops are businesses known to center on social aspects (Birchall, 2011; Novkovic, 2008; Puusa et al., 2013). As Draheim (1955) first underscored, co-ops are distinguished by their “double nature”, simultaneously presenting a social

group and a business enterprise owned and governed by the group members (Iliopoulos and Valentinov, 2017). In fact, as a people-centered organizational form, co-ops are naturally committed to community development (Cechin et al. 2013; Forker et al., 2014) and to filling provision gaps for marginalized groups or disadvantaged areas (Foreman and Whetten, 2002; ICA, 2015; Valentinov and Iliopoulos, 2013). In other words, co-ops are well-placed to genuinely blend business with social features. Accordingly, in this dissertation, we reflect upon co-ops' capacity and propensity to attend to (often conflicting) business and social demands (Ashforth and Reingen, 2014), and we, therefore, embrace a dual outlook. While we emphasize business issues (e.g., examining the influence of strategic attributes on performance) in Chapter 2, we delve into both aspects throughout the dissertation, adopting a business-social perspective in Chapter 3 and a social-business one in Chapters 4a and 4b respectively.

## THEORETICAL LENSES

In all chapters, we build on prominent theoretical and empirical co-op literature. In Chapter 2, we integrate literature dedicated to co-op organizational issues (e.g., Beverland, 2007; Borgen, 2011; Chaddad and Cook, 2004; Chaddad and Iliopoulos, 2013; Cook, 1995; Cook and Iliopoulos, 1999; Dunn, 1988; Kyriakopoulos et al., 2004; Nilsson, 2001; Russo et al., 2000). In Chapter 3, we systematically review and synthesize 139 empirical articles and reports partly or fully related to co-op performance and published over the past 40 years (e.g., academic papers, industry briefs, and policy reports). In Chapter 4, we turn to literature that has centered on or extensively discussed the importance of co-op membership (e.g., Bhuyan, 2007; Birchall, 2011; Byrne et al., 2015; Hernández-Espallardo et al., 2013; Kalogeras et al. 2009; Mazzarol et al., 2014). Moreover, throughout the dissertation, we couple co-op literature with distinctive paradigms of the marketing and management literature, such as market orientation (Chapter 2), financial ratios (Chapter 3), satisfaction (Chapters 3 and 4a), trust and word-of-mouth (Chapter 4b).

In Chapter 2, we combine early seminal work on market orientation (e.g., Kohli and Jaworski 1990; Narver and Slater, 1990) with more recent research (e.g., Kirca et al., 2005; Matsuno et al., 2002; Morgan et al., 2009; O'Cass and Ngo, 2011; Ozkaya et al., 2015), capitalizing on the substantive body of scholarly work in the marketing discipline developed since the inception of the concept (Kumar et al., 2011). We complement market orientation with a younger but equally pivotal concept, namely brand orientation (Reid et al., 2005; Urde, 1999; Urde et al., 2013; Wong and Merrilees, 2007). In Chapter 3, we put forward an interdisciplinary dialogue with literature on social enterprises (e.g., Ashforth et al., 2014; Haigh et al., 2015; Ramus and Vacaro, 2017; Scarlata et al., 2016; Smith et al., 2013) as the latter face similar (business-social) ends and challenges with co-ops, in their quest to accomplishing missions and, simultaneously, maintaining financial viability through market competition (Battilana and Lee, 2014). In Chapter 4, we explore, measure and document a core co-op peril with the aid of social exclusion and social mistreatment literature (e.g., Cullen et al., 2012; Duffy et al., 2002; Scott et al., 2013; Spector and Jex, 1998), predominantly relying on the voluminous ostracism research (e.g., Chernyak and Zayas, 2010; Ferris et al., 2008; O'Reilly et al., 2014; Robinson et al., 2013; Williams, 2001; Wolf et al., 2015; Zadro et al., 2005). Finally, in the same chapter (Chapter 4), we draw from critical relationship marketing research (e.g., Aurier and N'Goala, 2010; Morgan and Hunt, 1994; Sirdeshmukh et al., 2002; Verma et al., 2016 Vincent and Webster, 2013), eventually deliberating why scholars need to shed more light on the “dark side” of relationship marketing (Payne and Frow, 2017).

## **EMPIRICAL REFLECTIONS**

Each chapter fuses different settings, collection procedures, and analysis methods, with the overarching aim of achieving external validity (see Table 1.1). In Chapter 2, the focus is placed entirely on agribusiness co-ops, Chapter 3 concentrates on agribusiness co-ops but considers findings in other domains too (e.g., financial services), and Chapter 4 centers on the three dominant domains on

a global scale, namely agribusiness, financial services, and consumer co-ops. Across all studies, data were collected both online and in face-to-face contacts from almost 2000 different participants. In Chapter 2, key informants (e.g., CEOs) participated on behalf of their co-ops. In Chapter 4, co-op members took part in the three field studies performed. In the initial stages of the scale development process (Chapter 4a), experts gave their input too. Similarly, in Chapter 3, experts contributed to the data generation. To analyze the data collected, we used different techniques, from simple statistical tests to more advanced methods, such as structural equation modeling (SEM) (see Table 1.1).

## DISSERTATION OVERVIEW

The dissertation consists of five chapters in total, although Chapter 4 is divided into two sub-chapters. An overview of the main chapters (Chapter 2 to Chapter 4b), in terms of goals, research contexts, data collection procedures, and technical analyses employed, is offered in Table 1.1.

Regarding the dissertation structure, in Chapter 2, we first develop a classification of traditional versus restructured co-op organizational attributes based on an inductive approach. Using this classification and integrating concepts from the marketing literature (i.e., market and brand orientation), we hypothesize three types of relationships: (a) the influence of organizational attributes (i.e., ownership, control and cost/benefit allocation) on organizational performance; (b) the influence of strategic attributes (i.e., market and brand orientation) on organizational performance, and (c) the influence of organizational attributes on market orientation. We then examine these relationships empirically in two studies. In Study 1, we demonstrate that strategic attributes have a greater impact on performance than organizational attributes. Still, part of the latter (e.g., exit barriers, differentiated pricing) exert some influence on market orientation. In Study 2, we *replicate* Study 1 four years later in a subset of the original sample and confirm the findings of Study 1.

In Chapter 3, we begin with an analysis of a preliminary framework for co-op performance, in which we detail five sub-categories. We then use an extensive review of empirical research in co-op performance (phase 1) and a Delphi study with 14 experts (phase 2). Additionally, we review comparable research efforts for the organizational form (i.e., social enterprises) that combines business with social goals and encounters similar challenges with co-ops (phase 3). This inquiry is particularly insightful for the social perspective and the overlooked role of co-ops as a socially-embedded organizational form that hardly documents its societal impact and outreach. We eventually deliver a concrete dashboard for co-op performance assessment that harmonizes business-social aspects and serves as a common benchmark (a “common currency”) for future empirical studies.

In Chapter 4a, we first conceptualize co-op ostracism. We then follow a seven-step process to explore it in different co-op domains and develop a reliable and valid measurement tool which could assist co-ops in tackling its deleterious effects. We use the first three steps for item generation, screening, and reduction, and to confront our conceptualization with members’ (Step 2) and experts’ (Step 3) notions, respectively. Successively, we advance item selection based on a suitability task (Step 4) and an item-sort task (Step 5). In Step 6, with data from three different domains (i.e., retail banking, agribusiness, and consumer), we provide evidence regarding the factor structure, scale reliability, and the overall construct validity. In Step 7, we find additional support for the construct’s external reliability. The findings from this seven-step study not only support the new construct’s reliability and validity but also provide initial evidence that ostracism is fairly common in co-op life. In Chapter 4b, our empirical testing across three co-op domains shows that co-op ostracism particularly influences critical exchange (and membership) outcomes, even in the presence of a prevalent relationship-building factor (i.e., trust) and a rival relationship-destroying account (i.e., social undermining). Subsequently, we develop a



mechanism that co-ops may use to cope with ostracism (a coping strategy) based on the sense of mutuality driven by the joint influence of entitativity and cognitive capital.

In Chapter 5, we recap the major findings of all essays, present a synopsis of the theoretical contributions and the managerial implications, and discuss directions for future research.

**Table 1.1** – Dissertation overview

<i>Chapter</i>	<i>Essay</i>	<i>Goals</i>	<i>Research contexts &amp; data collection procedures</i>	<i>Analyses</i>
1	Introduction			
2	Essay 1: Co-ops' organizational restructuring, strategic attributes, and performance	Understand the influence of organizational attributes on strategic attributes and co-op performance	- Field studies with multi-purpose agribusiness co-ops. Online and face-to-face responses from 114 (Study 1) and 25 (Study 2) key informants (e.g., CEOs) at time A (Study 1) and time B (Study 2) respectively	OLS regression and non-parametric statistical tests
3	Essay 2: Harnessing a "currency matrix" for performance measurement in co-ops: A multi-phased study	Deliver a new comprehensive performance dashboard for co-ops	- Phase 1: Review of empirical co-op performance literature (139 articles & policy reports, four guides) - Phase 2: Delphi study with 14 co-op experts - Phase 3: Review of empirical literature on the performance of social enterprises (15 articles)	Content analysis, consensus analysis

4a	Essay 3a: Developing an instrument to detect member-customer ostracism in co-ops	Explore a core co-op threat (i.e., co-op ostracism) and develop a diagnostic tool	<ul style="list-style-type: none"> <li>- Steps 2 to 5: In-depth interviews with 26 co-op members, expert screening with 12 academics, suitability task with 208 business students familiar with the co-op context, item-sort task with 31 academics</li> <li>- Step 6: Field study with co-op members from 3 domains: agribusiness (n = 159), financial services (n = 324), consumer (n = 144). Online and face-to-face responses</li> <li>- Step 7: Online survey (i.e., Amazon M-Turk) with 132 members of various co-ops (e.g., consumer, financial, housing, agribusiness)</li> </ul>	Steps 2 to 5: Content analysis, factor and reliability analysis, substantive validity tests Step 6: EFA and CFA, reliability tests, discriminant & nomological validity tests Step 7: Test-retest reliability analysis
4b	Essay 3b: Assessing co-op ostracism's influence on relational exchange outcomes and counterpoising its relationship-poisoning effects	Assess ostracism's impact on key membership outcomes and develop a coping strategy	<ul style="list-style-type: none"> <li>- Field study with co-op members from 3 domains: agribusiness (n = 146), financial services (n = 301), consumer (n = 126). Online and face-to-face responses</li> <li>- Field study with 205 members from an agribusiness supply co-op</li> </ul>	SEM, hierarchical OLS regression, moderation analysis with PROCESS and simple effects testing (spotlight analysis)
5	Discussion			



## CHAPTER 2

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# Co-operatives' Organizational Restructuring, Strategic Attributes, and Performance: Evidence from Greece

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*This chapter is based on:*

Benos, T., Kalogeras, N., Verhees, F.J.H.M., Sergaki, P., and Pennings, J.M.E. (2016). Cooperatives' organizational restructuring, strategic attributes and performance: The case of agribusiness cooperatives in Greece. *Agribusiness*, 32(1), 127-150.

## INTRODUCTION

The drastic and global changes in agribusiness over the past two decades exposed producer-owned organizations like co-operatives (co-ops) to fierce competition of aggressive players such as wholesalers, investor-owned firms (IOFs) and retailers (Beverland, 2007). Despite creating value for their member-owners, co-ops often fail to respond to market changes because they lack a well-developed strategic focus (Borgen, 2011; Chaddad and Cook, 2004; Kyriakopoulos, 2000; Peterson and Anderson, 1996). The lack of connection to market demand limits their viability and requires the rearrangement of their organizational and strategic attributes (Kalogeras et al., 2009; van Dijk, 1999). The choices co-ops make regarding organizational (e.g., ownership, governance) and strategic attributes (e.g., market orientation, brand orientation) are thus crucial in dynamic markets or periods of transition in which product adaptations are required (Cechin et al., 2013). Not surprisingly, many co-ops have undergone profound organizational and strategic changes in the last two decades (Höhler and Kühl, 2014; Nilsson et al., 2012).

The extent to which co-ops modify their organizational attributes results in organizational forms that range from traditional, collectively organized, equality-based to restructured models (i.e., proportional or IOF alike) (Kalogeras et al., 2009). These restructured models are purported to facilitate improved adaptation of co-ops to agricultural industrialization and to market challenges (Chaddad and Cook, 2004; Hendrikse, 2011; Höhler and Kühl, 2014).

Besides organizational attributes, the business literature (e.g., marketing and management studies) identifies several strategic attributes to align firms with their markets, among which are market and brand orientation (e.g., Berthon et al., 2008; Matsuno et al., 2002; Urde et al., 2013). Market orientation reflects a firm's propensity to adopt the marketing concept, which is the belief that the best way for firms to achieve their own objectives is to satisfy customers more

effectively and efficiently than competitors do (Jaworski and Kohli, 1993; Kumar et al., 2011). Consequently, market orientation emphasizes responsiveness to changes in customer needs and competition and thus encourages continuous changes in the firm's offer (Morgan et al., 2009). Brand orientation refers to a firm's processes revolving around the creation, development, and protection of brand identity (Urde, 1994). Brand identities are created in customers' minds over a long period, and thus brand orientation emphasizes stability (Wong and Merrilees, 2005).

This Chapter explores the influence of organizational attributes on the market orientation and performance of co-ops, as well as the influence of the strategic attributes (market and brand orientation) on performance. The need to gain a better understanding of the influence of organizational attributes on strategic attributes and the performance of co-ops has been recognized (Kalogeras et al., 2013; Kyriakopoulos et al., 2004; Mauget and Declerck, 1996), yet limited research has been devoted to the examination of these relationships. Researchers have utilized a rich spectrum of theories, such as agency theory (Cook, 1995) and property rights theory (Fulton, 1995), in their attempts to explain the problems inherent in agricultural co-ops (e.g., horizon, portfolio<sup>2</sup>, see Vitaliano, 1983). Moreover, many studies have focused on co-op performance primarily through financial analysis, such as balance sheet ratio assessments (e.g., Gentzoglanis, 1997; Parliament et al., 1990) or have maintained an analytical focus (e.g., Meulenbergh, 2000; Nilsson, 1998; Peterson and Anderson, 1996). Nevertheless, few, if any, account for the behavioral aspects of co-op entrepreneurship and the broader implications of restructuring co-ops' core attributes (Kalogeras et al., 2009; Salavou and Sergaki, 2013). Scholars need to

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<sup>2</sup> The horizon problem occurs as a result of the different planning horizons of co-op members, "with a general tendency for them to favor investment decisions with short payoff horizons" (Vitaliano, 1983, p. 6). The portfolio problem suggests that members have different risk/reward profiles, "with a general tendency for them to favor decisions with lower levels of risk" (Vitaliano, 1983, p. 6).

study the interplay of organizational attributes, strategic attributes, and performance in order to offer a more holistic understanding of co-op viability and provide guidance on how co-op organizations may navigate through turbulent times. To the best of our knowledge, only the study of Kyriakopoulos et al. (2004) shed light on the influence of structural attributes on co-op outcomes. The authors introduced and empirically tested a conceptual framework regarding the influence of organizational attributes and entrepreneurial culture on the market orientation and performance of agribusiness co-ops in the Netherlands.

We examine the attribute-performance relationships empirically with two studies from Greece: one conducted in 2006 (Study 1) and a smaller scale replication conducted in 2010 (Study 2). Due to the introduction and enforcement of a new law (Law 2810/2000), several legal barriers were lifted, and the restructuring of co-op attributes was permitted in Greece. In fact, the flexibility of the new law challenged co-ops to abandon their traditional organizational form and passive market role (Iliopoulos, 2001). Our decision context thus presents a unique opportunity to follow an inductive approach (McKelvey, 1982), using empirically grounded observations for the classification into “traditional” versus “restructured” attribute elements (see Table 2.1), and empirically testing this classification against strategic attributes and performance. We used the policy reform as the turning point, as such changes in the legal and institutional environment typically affect co-ops’ structure and market behavior (Chaddad and Cook, 2004; Iliopoulos and Theodorakopoulou, 2014; Oustapassidis et al., 1995). In general, studies into the influence of legal changes - organizational, regulatory or tax laws - on organizational innovations and business strategies are called for (Cook, 1995; Hansmann, 1996).

The remainder of the Chapter is organized as follows. We first describe the development of a classification of organizational attribute elements ranging

between “traditional” and “restructured”, followed by an elaboration on strategic attributes. Subsequently, hypotheses are formulated that show the influence of organizational attributes and strategic attributes on performance. After explaining the survey design and operationalization of the measures, the empirical findings are presented, for Study 1 and Study 2. Finally, conclusions, implications, and suggestions for future research are offered.

## **BACKGROUND: CO-OP ATTRIBUTES AND PERFORMANCE**

### **Organizational Attributes**

In this study, we adopt the definition of co-ops provided by a 1987 study of the United States Department of Agriculture (USDA) and popularized by Dunn (1988). This definition, which has gained nearly universal endorsement by agricultural co-op scholars and practitioners alike (Iliopoulos et al., 2016), is summarized as three general principles of use: 1. the user-owner principle, 2. the user-control principle, and 3. the user-benefits principle. In other words, those who own, finance and control the co-op are those who use it, while the co-op’s core purpose is to provide and distribute benefits to its users on the basis of their use. The co-op structure may be organized along the three principles, ranging from “traditional” to “restructured” (van Bekkum, 2001). The traditional organizational model of agribusiness co-ops entails exclusive members’ ownership, democratic control, and a uniform pricing policy (Barton, 1989). In contrast, the restructured co-op model is composed of individualized equity, non-member funding, proportional decision control, and the allocation of benefits through price differentiation and personal shares (see Chaddad and Cook, 2004).

We classify the organizational attribute elements of co-ops using recent advances in the co-op literature and empirical observations. We built on the specificities of our decision context, using an inductive approach (McKelvey, 1982). That is, we first conducted an extensive study of the law that permitted



organizational restructuring in agribusiness co-ops in Greece (see Table 2.1 below). Then we discussed our inferences with several co-op experts and policymakers (from Greece, the Netherlands, and the United States). The review of the relevant literature, the study of the law, and the discussions resulted in the development of a classification distinguishing between traditional and restructured attribute elements (see also Table 2.2). Our classification does not follow an “either/or” approach, however. That is, we do not classify co-op as either “strictly traditional” or “strictly restructured”. We capture the adoption of restructured attribute elements vis-à-vis the retaining of traditional ones.

**Table 2.1 - Organizational attributes of co-ops in Greece**

Attributes	Organizational innovations introduced by effect of Law 2810/2000
<i>Control</i>	
Voting rule	Only members have voting rights, but co-ops are free to introduce voting systems proportional to production rights. The voting rights of members, however, have to be in proportion to patronage; with an upper limit of three votes per member for the first order co-ops and five votes per member-co-op for second order co-ops.
Corporate decision-making	Corporate control regarding resource allocation decisions (e.g., allocation of net income, approval of big investment projects and annual financial statements) is exercised by the member-patrons through their general assembly. However, the Board of Directors (BoD: elected representatives by members) is allowed to transfer to professional experts almost all the management decision rights regarding tactical and operational issues.
<i>Ownership</i>	
Entry fees	Upfront equity investment is required by all members of co-ops.
Claim to ownership rights 1/preferred shares	Co-ops have the right to issue non-voting preferred shares with fixed returns alongside the voting stock. It is also stated that non-members are also entitled to purchase this separate class of stock. Co-ops’ memorandum of association may stipulate that some incentives are provided (e.g., dividends on those shares from the co-op’s annual net income).
Claim to ownership rights 2/subsidiary	Members or non-members may claim ownership rights when co-ops would set-up public limited companies (PLCs). In this case, co-ops hold the majority of equity ownership for developing strategic synergies with other co-ops or investors (non-members). Those PLCs are defined as “Cooperative Enterprises”, and their stocks should always be registered (nominal shares). The PLCs’ equity can only be transferred after the completion of the formalities required by law. Moreover, the law provides extra incentive for members to further invest in co-op activities. When stocks of co-op enterprises are for sale, other co-ops or co-op members that hold shares already should always have priority over external investors.

Equity investment-patronage alignment	Members are free to decide whether to acquire additional stocks or not, but always in proportion to patronage. So, the level of the upfront equity investment and issuance of extra voting stock in proportion to patronage is a members' choice.
Transferability of rights	The transferability of ownership rights is left upon the BoD to decide (i.e., whether stocks are transferred to members or not).
Tradable ownership rights & Redeemable ownership rights	The regulatory items that refer to redeemability and tradability of ownership rights do not introduce any changes. Members enjoy the right to have the nominal value of their individualized equity refunded upon exit, whereas their ownership rights cannot be tradable among them.
Appraisal of rights 1/interest & Appraisal of rights 2/fee change	The appraisal of rights is left upon member-patrons' preference, and the relevant decision is formed via the general assembly (i.e., whether to increase or decrease the value of the voting stock owned by individual members). Also, members may decide whether the voting stock is interest bearing. Members' remuneration for their contribution to the collective equity capital can be indirectly compensated for the opportunity cost of their invested risk capital.
Net Income	The distribution of net income can be made through dividends in proportion to patronage, or it can be retained as an individualized short-term loan from members to the co-op or even allocated for an investment project. Only the general assembly decides on the net income's distribution. At least 10% of net income should be reserved for the unallocated form of equity (reserve funds) until the value of the latter equals the value of the individualized voting stock. Thereafter, no amount is retained, unless the value or the amount of individualized voting stock is increased. In this situation, the unallocated equity has to be re-adjusted, and the retained earnings mechanism has to be reintroduced. Hence, net income allocation cannot be applied as a price supplement and can only be returned as a dividend in proportion to patronage.
Exit barriers	The new act states that the memorandum of cooperative association may set a minimum period that a member has the right/obligation to patronize the co-op.
<i>Cost/Benefit Allocation</i>	
Delivery agreement nature & Sanctions	The intra-organizational supply management is also determined through the regulations which specify the delivery rights agreement. The latter may be obligatory whereas co-ops are free to take a stance on the imposition of sanctions against members not fulfilling their delivery obligations.
Differential pricing & Differential cost pricing	Co-ops are free to adopt a differentiated pricing policy in terms of volume, quality and produce content to reflect as much as possible the handling costs and market returns of each member's produce. The price level may be cross-subsidized with returns on transaction-based investment (e.g., account for product quantity and certain quality standards) or reflect the market equilibrium price paid through separate dividends (i.e., returns on capital invested).

## Strategic Attributes

Strategic attributes refer to fundamental choices of co-ops regarding their marketing approach (Meulenberg, 2000; van Dijk, 1999). To be successful, a firm's offer (i.e., positioning and marketing mix) should be aligned with the needs of the markets served (i.e., market segmentation and targeting) (Kotler and Keller, 2012). Two prominent strategic attributes that describe a firm's marketing approach are market and brand orientation (Urde et al., 2013).

*Market orientation* is a central concept in the marketing literature (Gebhardt et al., 2006; Ozkaya et al., 2015), representing the implementation of the marketing concept, an essential cornerstone of the marketing discipline (Grewal and Tansuhaj, 2001). Academics first began connecting the marketing concept with market orientation in the 1990s (see Kohli and Jaworski, 1990; Narver and Slater, 1990) and developed a substantive body of research ever since (Kumar et al., 2011). This research illustrated that market orientation leads to improvements in customer value (Slater and Narver, 2000), customer satisfaction (O'Cass and Ngo, 2011), employee commitment (Matsuno et al., 2002), financial performance (Kirca et al., 2005), even business performance under high competitive intensity (Kumar et al., 2011). It comes as no surprise that market orientation has received scrutiny from marketing scholars and has become increasingly relevant to scholars in other fields such as management (e.g., Morgan et al., 2009).

We follow the Narver and Slater (1990, p. 21) definition conceptualizing market orientation as "the organizational culture and climate that most effectively encourages the behaviors that are necessary for the creation of superior value for buyers and, thus, continuous superior profit for business". The objective of delivering superior customer value is based on the knowledge derived from customer and competitor analyses and the process by which this knowledge is gained and disseminated throughout the organization (Gebhardt et al., 2006). Thus, market orientation is best viewed in terms of a *culture* that

effectively and efficiently creates the -necessary for organizational success - firm behaviors, the components of which are customer orientation, competitor orientation, and inter-functional coordination (Narver and Slater, 1990). This culture is in essence determined by an outside-in strategic thinking process. This implies that the formation of organizational structure and strategy has to be informed by market-sensing capabilities which leverage the firm's ability to create superior value for customers (Day, 1998; Grewal and Tansuhaj, 2001). Hence, a robust market orientation enables a firm to anticipate market threats and opportunities and thereby enhances its ability to adopt and implement a winning strategy ahead of competition over time (Day, 1998; Kumar et al., 2011; Ozkaya et al., 2015). Consequently, market dynamics, such as changes in customer needs and competitive behavior, guide a firm's marketing strategies and tactics.

*Brand orientation* is a younger paradigm than market orientation (Louro and Cunha, 2001). It refers to the creation, development, and protection of brand identity for the achievement of positional advantage in the market in an ongoing interaction with target customers (Urde, 1994). Customers use brands as a guide for their buying decisions, especially in environments of increasing information flows and product assortments, e.g., the agri-food industry (Hanf and Kühl, 2005). Thus, brand orientation increases both customer loyalty and entry barriers for competitors (Kotler and Keller, 2012). Adopting brand orientation is a strategic choice (Urde, 1999). The management of brand identity should take a long-term perspective because consumers' knowledge about brands changes slowly. As a result, brand identities also guide marketing strategies and tactics over time (Davis, 2002; Urde, 1999; Urde et al., 2013).

## **Performance**

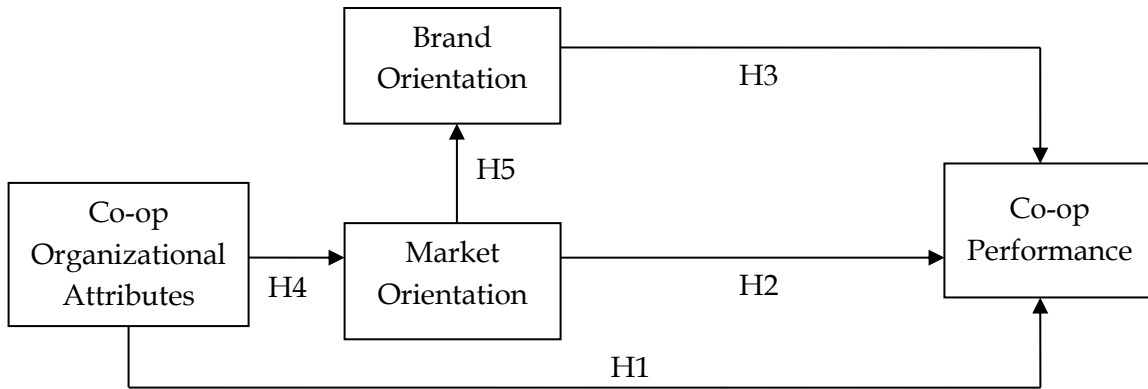
The performance of agribusiness co-ops as organizations can be viewed as a volatile factor resulting from the rapidly changing agri-food environment.

Evaluating whether a co-op achieves its objectives is far more complex than using simple market-based performance measures as in the case of IOFs (Cook, 1994; Soboh et al., 2009). Sexton and Iskow (1988) and Katz (1997) contend that, due to the absence of secondary markets for co-op-issued stocks, and this is a relevant element for our decision context, simple market-based measures (e.g., financial ratio analysis) may mask crucial insights when studying co-op performance. In addition, objective measures of performance are often difficult to obtain (Dess and Robinson, 1984), let alone for individual co-op members (Kalogeras et al., 2009). These arguments prompted us to view co-op performance as a subjective concept comprised of market and financial indicators proposed by previous studies in business literature, such as sales volume, market share, and new market entry (Cadogan et al., 2002; Deshpande et al., 1993).

Moreover, considering that co-ops have a dual performance mission of meeting organizational goals and satisfying member objectives at the same time (Soboh et al., 2009), we also integrated elements of member perceptions on co-op organizational performance. That is, members expect their co-op to grow, become highly competitive, and hence increase its organizational performance. The latter can be achieved when a co-op increases its market shares, advances its processing capacities and technologies, and raises the price paid to its members. Thus, members may perceive their co-op as of high-quality when they believe that the latter's performance enhances their own economic interests (Fulton and Giannakas, 2001). In sum, in view of the ongoing debate on co-op performance (Chaddad and Iliopoulos, 2013; Kalogeras et al., 2013; Soboh et al., 2009), we use subjective measures based on past business literature, while in partly integrating members' perspective, we assess their perceptions on organizational performance indirectly.

## CONCEPTUAL MODEL

Inspired by Kyriakopoulos et al. (2004), we hypothesize that the restructured organizational attributes of co-ops influence their market orientation and performance. Following advances in marketing science and agribusiness economics (e.g., Gebhardt et al., 2006; Noble et al., 2002; Urde et al., 2013), we extend this modeling framework by hypothesizing that the strategic attributes market and brand orientation also influence the performance of co-ops. Figure 2.1 displays the hypothesized relationships, and the following subsections discuss each specific hypothesis.



**Figure 2.1** – Conceptual model and hypothesized relationships

### Organizational Attributes – Performance

Control arrangements pertain to decision control rights and decision management (Chaddad and Iliopoulos, 2013). Restructured decision rights like proportional voting may motivate members, especially large-sized producers, whose capital and patronage is instrumental in business success, to invest further in co-op activities (Kyriakopoulos et al., 2004). In other words, large-sized members (in terms of produce marketed and firm size) often own the resources to invest in co-op activities and projects that require a significant capital contribution and/or have a long-term payoff. Their membership is, therefore, essential to the continued co-op success (Reynolds, 1997). However, co-op

practice has shown that they often feel their economic interests not being represented by the traditional “one-member one-vote” rule (Royer, 1995). Moreover, co-op members of any size often lack market expertise and management capabilities to exercise decision management (Bijman et al., 2013). As co-ops expand and diversify, the need to employ professionals for making strategic, tactical and operational decisions increases (Cook, 1994; Hueth and Marcoul, 2009; Iliopoulos, 2001). Increasing the responsibilities assigned to professional management makes co-ops more viable and efficient, allowing them to serve their members’ needs better (Adrian and Green, 2001). Therefore, we hypothesize that:

**H1a:** Restructured control arrangements in co-ops positively influence co-ops’ performance.

Restructured co-ops relax the traditional ownership arrangements with the aim of reinforcing the investment incentives for their members. The increased willingness of members to invest in co-op activities is then expected to influence performance positively (Cook and Iliopoulos, 1999). That is, the establishment of internal capital markets provides opportunities for investing further risk capital in co-op operations (Hendrikse, 2011). These investment incentives are further enhanced by the introduction of member-commitment arrangements, such as exit barriers (van Dijk, 1999), which provide a longer investment orientation for all members, thus facilitating long-term co-op plans that in turn influence long-term performance. Of course, exit barriers should be introduced with care, as they might discourage new members from joining, especially in newly established co-ops. Research has demonstrated that restructured ownership features enhance co-ops’ performance (Cook and Iliopoulos, 1999; van Bekkum, 2001). More formally:

**H1b:** Restructured ownership arrangements in co-ops positively influence co-ops’ performance.

Co-ops are continuously challenged to respond in a timely manner to markets with a constant supply of products bearing specific quality standards (Hendrikse, 2011). The control of supply has been discussed in co-op literature as a significant determinant of operational success (Cook and Iliopoulos, 2000). Besides, the foodstuffs produced by co-ops are, typically, subject to value decay over time and require a well-synchronized value chain (Hanf and Kühl, 2005). Enforceable delivery agreements and differential pricing schemes can thus be an essential means of achieving the goals of constant supply and synchronization (Jia and Huang, 2011). In several traditional co-ops, members may act opportunistically and shirk on quality and deliveries because they are not held liable for such behavior (Borgen, 2011; Harris et al., 1996). Co-ops may better satisfy the needs of different groups of members by adopting a differentiated pricing policy, which reflects as much as possible the handling costs and market returns of each member's produce (Kalogeras et al., 2009). Therefore, we hypothesize:

**H1c:** Restructured cost/benefit allocation arrangements in co-ops positively influence co-ops' performance.

### **Strategic Attributes - Performance**

Overwhelming evidence of a positive influence of market orientation on performance has been reported and analyzed in the management and marketing literature (Ben Brik et al., 2011; Morgan et al., 2009; Ozkaya et al., 2015). Market orientation provides the firm with market-sensing and customer-linking capabilities (Grewal and Tansuhaj, 2001). Understanding and anticipating customer needs subsequently increase firm innovativeness, new product success, customer-perceived product quality, customer satisfaction, customer loyalty and ultimately performance (e.g., Kirca et al., 2005). The relationship between market orientation and performance seems particularly strong for manufacturing firms, like most agribusiness co-ops (Kyriakopoulos, 2000; Meulenbergh, 2000; van Dijk,



1999). Moreover, the relationship seems to hold for medium-sized firms (Pelham, 2000), like most co-ops in Greece (Iliopoulos, 2012; Salavou and Sergaki, 2013). We hypothesize that:

**H2:** Market orientation positively influences performance in co-ops.

Brands increase performance because they create a higher price premium and larger market shares (Kotler and Keller, 2012). The chain of effects from introducing brands to higher performance, however, is complicated (Chaudhuri and Holbrook, 2001). Consumers may pay more for a product/service of a particular brand because they are mostly satisfied with the merits of specific attributes and cues of this brand rather than with its alternatives. Brands even reduce marketing costs, because strong brands with loyal customers generate positive word of mouth, which is highly effective and free advertising. Moreover, trade is willing to cooperate (for example with in-store promotions or introducing new products) with strong brands while weak brands have to pay for this co-operation (Kotler and Keller, 2012). Awareness of the potential of brands puts brands at the center of marketing strategies (Urde, 1994). This enforces brand-oriented companies to emphasize the creation and efficient use of brand equity. Brand equity is used as leverage in all aspects of business management (Wong and Merrilees, 2005). Brand orientation, therefore, increases performance by stimulating first brand differentiation and product value, and subsequently customer loyalty, higher prices, and higher market shares (Reid et al., 2005; Urde et al., 2013). Moreover, research has shown that European co-ops that pursue and implement product differentiation aiming at the development of solid trade brands perform much better than co-ops with limited branded market presence (Mauget and Declerck, 1996). More formally:

**H3:** Brand orientation positively influences performance in co-ops.

## Organizational Attributes - Market Orientation

The voting principle of restructured co-ops often appeals to members' incentives. For instance, members of differing sizes may be motivated to contribute more to the collectively allocated equity, as they realize that their investment strategy is now represented and rewarded proportionately to their patronage and financial contribution (i.e., residual rights) (Chaddad and Iliopoulos, 2013). Members' willingness to invest further in co-op activities enhances the co-op attempts to achieve a timely and well-organized response to the rapidly changing demands of final markets and, therefore, allows for the creation of more market-driven governance structures (Royer, 1995). Moreover, the assignment of decision rights to hired managers is expected to stimulate a market orientation in co-ops. The decision making in traditionally organized co-ops is more time consuming than in other organizational forms. It reduces flexibility and creates inertia with respect to the reaction to changing market circumstances (Nilsson, 2001). Professional managers are expected to be aware of the importance of being market-oriented and retain more resources for the co-op (Russo et al., 2000). Sufficient resources and an awareness of their importance seem to suffice in rendering the co-op more market-oriented (Meulenbergh, 2000). Furthermore, restructured co-ops are expected to be more flexible, and if they wish to be market-oriented, they have to allow their management more entrepreneurial freedom (van Dijk, 1999). Flexibility stimulates market orientation (Grewal and Tansuhaj, 2001; Jaworski and Kohli, 1993). More formally:

**H4a:** Restructured control arrangements in co-ops positively influence the market orientation of co-ops.

Producers have to be willing to fund the co-op's market orientation (e.g., market research), as well as its market-oriented responsiveness (e.g., branding, new product development, and product differentiation) to achieve distribution

on grocery store shelves and generate revenues in the long run (Borgen, 2011; Narver and Slater, 1990). The nature of the ownership structure of a co-op significantly affects members' incentives to invest in the organization (Cook and Iliopoulos, 2000). In fact, the introduction of restructured ownership principles, such as entry fees and exit barriers, reduces apathy among members toward making long-term investments and eventually reinforces their commitment (Hardesty, 2005; Nilsson, 2001). Moreover, restructured co-ops allow for non-member investments, particularly in projects that maintain a long-term focus, for instance through preferred stock offerings and subsidiaries. This additional capital increases co-ops' potential to gather market intelligence, respond timely to market needs and therefore implement ambitious marketing plans. We hypothesize that:

**H4b:** Restructured ownership principles in co-ops positively influence the market orientation of co-ops.

Depending on the market valuation for specialty products, a self-selection process may develop among the members of a large co-op (Hendrikse and Bijman, 2002). Members with generic products continue their membership of the co-op to benefit from countervailing power (Sergaki, 2010). Producers of specialty products may abandon the co-op and set up new small co-ops to benefit from improved innovation. This situation results in co-ops being left with fewer innovative members, thereby resulting in production rather than market-oriented practices (Kyriakopoulos, 2000). The establishment of obligatory delivery agreements, especially when combined with individualized pricing mechanisms (e.g., paying a premium to members who deliver products of higher quality) helps co-ops cope with the opportunistic behavior of members (Cook and Iliopoulos, 1999; James and Sykuta, 2006), without sacrificing quality. These arrangements enhance the loyalty and operational efficiency of members and, thus, guarantee resources and enforcement mechanisms that enable a co-op to

engage in value-added activities (e.g., market-oriented activities) and develop products with a good reputation. Therefore, we hypothesize that:

**H4c:** Restructured cost/benefit allocation processes in co-ops positively influence the market orientation of co-ops.

### **Market Orientation – Brand Orientation**

A market orientation is a prerequisite for brand orientation (Reid et al., 2005; Wong and Merrilees, 2007). First, strong brands are favorable (Kotler and Keller, 2012), which requires knowledge about what customers want (i.e., a market orientation). Second, strong brands are unique (Kotler and Keller, 2012), which requires knowledge about what competitors offer (i.e., a market orientation). Third, brands are created in customers' minds (Kotler and Keller, 2012) and thus information about customers' perceptions is required (i.e., a market orientation). Finally, insights in customers' buying behavior (i.e., a market orientation) are instrumental for firms to realize the power of brands (O'Cass and Ngo, 2011), which initializes the development of a brand orientation. Therefore, we hypothesize that:

**H5:** Market orientation positively influences brand orientation in co-ops.

### **Decision Context**

Co-op organizations were abundant in the Greek agri-food industry at the time of the study. They had amongst the largest memberships in Europe, and they were involved in multiple activities, such as farm input supplies, product processing, marketing of agricultural produce and exports (Baourakis et al., 2002; Iliopoulos, 2012). They played a crucial role in uplifting the socio-economic conditions of their members as well as local communities (Salavou and Sergaki, 2013). Their organizational pyramid consisted of three levels. Those that integrated farmers from the same geographical area were defined as first-order

co-ops<sup>3</sup>. They were responsible for marketing their farmers' production, although other services, such as supplies and technical support, were also offered. Their local orientation, however, limited the volume and product range they were able to offer to their clients. Second-order co-ops, also titled unions of agricultural co-ops (henceforth UACs), were therefore established to commercialize all, or portions of the production of the vast majority of first-order co-ops. At the peak of the pyramid was the apex body, the Panhellenic Confederation of Agricultural Co-operatives (PA.SE.GES), whose objective was to support and promote the activities of all agribusiness co-ops as well as represent them on a national and international level.

Our decision context (i.e., co-ops in Greece) served a dual goal. It facilitated both our inductive approach and the empirical testing of the hypothesized relationships. In the mid-1990s, the majority of agribusiness co-ops in Greece was traditionally organized and had weak marketing approaches (Oustapassidis et al., 1995; Sergaki, 2010). In 2000, however, the Greek law on agribusiness co-ops (Law of Greece, number 2810/2000) was introduced permitting the organizational restructuring of co-ops to enhance their market position. It thus offered co-ops a unique opportunity to overcome their structural inefficiencies, as well as to enhance their strategic focus and competitiveness. The institutional change provided us with the opportunity to adopt an inductive approach, using empirical observations based on the articles of the law, relevant literature dealing with agribusiness co-ops (in Greece) and discussions with co-

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<sup>3</sup> It should be mentioned that by force of Law 4510/2011 (introduced more than a decade after Law 2810/2000), all UACs had to be converted either to first-order co-ops or to PLCs controlled by first-order co-ops. Member-producers of first-order co-ops who were members of UACs had to become members of the new co-ops or withdraw. However, Law 4510/2011 did not conflict with Law 2810/2000 in other organizational features. Moreover, a new Law entered into force as recently as in 2016 (Law 4384/2016), which abolished some of the organizational innovations of Law 2810/2000 (e.g., the voting principle, the appraisal of ownership rights). Nevertheless, our sample, described in the following section (see "Research Design"), is still almost 100% relevant today and is available for any cross-checks upon request.

op experts and policymakers, both in Greece and abroad, as inputs for the classification explained above and presented in Table 2.1 below.

Our informed theoretical considerations were then empirically tested against a representative sample of co-ops from Greece. The hypotheses were first tested in Study 1. Study 2 replicated study 1 four years later, with a subset of the original sample, enabling us to monitor the restructuring progress over time and indirectly control for any lag effects, as changes in co-op structure resulting from institutional reforms often take time to materialize (Kalogeras et al., 2013). This longitudinal research design also lends greater external validity to the findings.

## **METHODOLOGY AND RESULTS: STUDY 1**

### **Research Design**

The sample was drawn from the official list of co-ops in Greece as compiled by PA.SE.GES. We first selected all UACs. We then included first-order co-ops that commercialize all or part of their production themselves instead of solely through UACs. This yielded a total of 155 co-op associations: 45 first-order co-ops and 110 UACs, virtually accounting for all agribusiness co-ops in Greece. Following the key informant method, we considered that the general managers (CEOs) of these co-ops were likely to be the most knowledgeable about restructuring as well as strategic issues. A formal, structured questionnaire was developed and mailed to them, after a pre-test with six co-ops, five UACs, and one first-order co-op, in which no issues were raised. The response rate to our mail survey was 82%, including 89 UACs and 37 first-order co-ops. Only respondents without missing values were included in the analyses and, as a result, 12 were excluded. In total 114 responses (from 80 UACs and 34 first-order co-ops) were used for the following analyses.

## Measures and Measurement Assessment Procedures

*Co-op attributes* were measured with direct questions to determine whether the control, ownership as well as cost/benefit allocation elements were traditional or restructured. For restructured attribute elements, these questions were answered affirmatively – with a yes (coded as 1) – and for traditional, these questions were answered negatively – with a no (coded as 0). The *control attribute* was measured using two questions: one about voting rights, henceforth termed “voting rule”, and one about decision-making responsibility (explained below). The voting element could either be the traditional “one member one vote” (0) or restructured “proportional voting based on patronage” (1). The *ownership attribute* was measured using seven questions about the alignment of equity with patronage, termed “equity-patronage alignment,” and transferability of ownership rights, termed “transferable ownership rights”; two questions on the appraisal of ownership rights, termed “appraisal 1/interest” and “appraisal 2/change in fee”; one for exit barriers, termed “exit barriers”; and two questions on outside capital, termed “claim 1/preferred shares” and “claim 2/subsidiary”. For restructured elements, these questions were answered with a yes (1), and for traditional, these questions were answered with a no (0). Finally, *cost/benefit allocation* was measured by asking four questions: two about the prices paid to members, termed “differentiated pricing” and “differentiated cost pricing”; and two about the obligatory delivery agreements, termed “nature of delivery agreement” and “sanctions.” The obligatory delivery agreements were determined by asking whether members were obliged to deliver their entire production to the co-op, based on contractual arrangements, and by asking whether members faced sanctions in the case of non-delivery of the quantities set by the agreement. The answers to these two questions were highly associated

(Chi-squared  $X^2 = 47.979$ ,  $p < 0.001$ ; Cramer's<sup>4</sup>  $\Phi = 0.622$ ,  $p < 0.001$ ). If co-ops had adopted either of the two arrangements, the newly formed variable termed "nature of delivery agreement/sanctions" was assigned a value of 1 (restructured), whereas if co-ops had adopted neither of the two, this variable was assigned a value of 0 (traditional) (Kyriakopoulos et al., 2004).

*Strategic attributes* were measured with multiple-item scales from prior studies. All responses were made on a 7-point Likert-type scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*. In assessing the validity of the constructs, we first conducted an exploratory factor analysis (EFA) that assessed the underlying factor structure of the scale items. The results revealed five factors with eigenvalues greater than 1.0, which accounted for 62% of the total variance. Further, the results of Harman's one-factor method revealed that the first factor did not account for the majority of the variance (only 25%) and there was no general factor in the unrotated factor structure. These results suggested that common method bias was not a likely threat (Podsakoff and Organ, 1986).

We then ran principal axis factoring (PAF)<sup>5</sup> for each construct separately, making use of the multiple criteria method to decide upon the underlying factor structure (Conway and Huffcutt, 2003; Hair et al., 1998). A priori determination, the total variance explained, the scree plot, the Kaiser criterion, formal testing as well as the more elaborate procedures of parallel analysis and Velicer's minimum average partial (MAP) test were used (O'Connor, 2000). Following the validity checks, we ran reliability tests, for which we used Cronbach's alpha.

Market orientation, pertaining to the cultural perspective on market orientation, was measured using seven items. We used the cultural perspective rather than the behavioral perspective on market orientation because it provides

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<sup>4</sup> Cramer's  $\Phi$  is a statistic measuring the strength of association or dependency between two (nominal) categorical variables in a contingency table (Field, 2009).

<sup>5</sup> PAF, or "common factor analysis," is the preferred method when the primary concern is to identify the underlying dimensions (Malhotra, 2010). PAF typically secures good recovery of the underlying factors (Fabrigar et al., 1999).



a better explanation for the variations in business performance than the behavioral perspective (Gebhardt et al., 2006; Oczkowski and Farrell, 1998). The cultural perspective on market orientation has been conceptualized as a one-dimensional construct (Narver and Slater, 1990). Multiple criteria (i.e., MAP, scree plot, parallel analysis, a priori determination) suggested that a one-factor solution was appropriate. All the items had a loading higher than 0.602. The construct was sufficiently reliable; the Cronbach's alpha was equal to 0.795. The mean score of the seven items was used for further analysis. An example item is "Our business objectives are driven primarily by customer satisfaction".

*Brand orientation* was measured using five items adapted from Matear et al. (2004). An additional item was added to measure the extent to which co-ops invest in new brands according to member perceptions. Matear et al. (2004) suggest that the perceptions of all actors involved, e.g., investors, managers, and employees, should be in harmony to serve as a basis for a truly brand-oriented company. All the criteria suggested that a one-factor solution was appropriate. All the items had a loading higher than 0.78 and Cronbach's alpha was 0.89. The mean score of the items was used for further analysis. The brand-orientation scale was also checked for consistency with the existing percentage of branded products marketed by co-ops. The correlation between the percentage of branded products and brand orientation was good (Pearson's  $r = 0.416$ ,  $p < 0.001$ ). An example item is "In our co-op, we invest significantly in managing and promoting our brand(s)".

*Performance* was assessed using a three-item scale developed by Cadogan et al. (2002) measuring the respondents' level of satisfaction with respect to three performance indicators in the last three years: sales volume, new market entry, and market share. The items of the scale were modified slightly for the purpose of this study because the original ones related to export activities. We generated four additional items: organizational performance as perceived by management,

organizational performance as perceived by members in terms of growth and in terms of turnover, and performance in relation to profitability. Multiple criteria, i.e., total variance explained, formal testing, MAP, and a priori determination, suggested a one-factor solution. One reverse-coded item had a rather low loading of 0.182 and was consequently excluded from further analyses. Cronbach's alpha for the remaining six items equaled 0.831. The mean score of the six items was used for further analyses.

Finally, for *decision-making responsibility*, i.e., the construct measuring part of the control attribute, the scale of Adrian and Green (2001) was used, albeit adapted to the context of this study. The managers were provided with 11 activities and asked to determine whether the responsibility for these activities lied with the BOD or the manager. An example item is "Managing the day-to-day operations of the co-op." Each activity was scored on a 5-point scale ranging from 1 ("board most responsible") to 5 ("manager most responsible"). Multiple criteria, including the scree plot, a priori determination, MAP and formal testing, suggested that a one-factor solution was suitable. All the items had a loading higher than 0.563, with a mean factor loading of 0.76, while this factor accounted for 58% of the variance. Cronbach's alpha equaled 0.93. The mean score of the 11 activities was used for further analyses.

### **Model Estimation and Results**

In Table 2.2, the percentages relating to the adoption of organizational innovations appear next to each attribute element. Clearly, at the time of Study 1, agribusiness co-ops in Greece had only partially adopted organizational innovations.

**Table 2.2** - Classification of Greek co-ops' organizational attributes

Attributes	Traditional: <sup>a</sup> before Law 2810/2000	Restructured: <sup>a</sup> after Law 2810's introduction
<i>Control</i>		
Voting rule	1 member 1 vote (79.2%)	Proportional (20.8%)
Corporate decision-making <sup>b</sup>	BoD	BoD and experts
<i>Ownership</i>		
Entry fees	No	Yes
Claim 1/ preferred shares <sup>c</sup>	Members only (93.6%)	Non-members also (6.4%)
Claim 2/ subsidiary <sup>c</sup>	Members only (75.2%)	Non-members also (24.8%)
Equity investment-patronage alignment	No (55%)	Yes (45%)
Transferability of rights	No (74%)	Yes (26%)
Tradable ownership rights	No	No
Redeemable ownership rights	Yes	Yes
Appraisal of rights 1/ interest	No (96.8%)	Yes (3.2%)
Appraisal of rights 2/ change in fee	No (4%)	Yes (96%)
Net income <sup>d</sup>	Through price	Through price and dividends
Exit barriers	No (73%)	Yes (27%)
<i>Cost/Benefit Allocation</i>		
Nature of the delivery agreement	Non-obligatory (56.8%)	Obligatory (43.2%)
Sanctions	No (57.3%)	Yes (42.7%)
Differential pricing	Equal (42.4%)	Differentiated (57.6%)
Differential cost pricing	Equal (70.7%)	Differentiated (29.3%)

<sup>a</sup> The percentages relate to each attribute of the three organizational principles; <sup>b</sup> There is no percentage for this attribute, as corporate decision making was measured on a five-point Likert scale; <sup>c</sup> The attribute "claim to ownership rights" was divided into two attributes – 1) claim through preferred shares and 2) claim through subsidiaries – as members (and external investors) can claim ownership rights through these two different routes; <sup>d</sup> Net income is allocated through price and dividends in all co-ops (unless the General Assembly decides that net income is retained for other purposes, e.g., an investment project).

The majority of them had retained a traditional voting system (80%) and had a members-only policy for claiming rights on preferred shares (93.6%) and

making downstream investments in subsidiaries (75.2%). Also, most co-ops did not allow the transferability of rights (74%) or the appraisal of rights based on interest remuneration (96.8%). A total of 73% of co-ops had not yet created exit barriers, and 70.7% had not implemented a differential cost-pricing policy. Slightly more than half of the co-ops imposed obligatory delivery agreements (56.8%) and sanctions (57.3%), and applied equity investment alignments (55%). In fact, only a few among the plethora of organizational innovations had been widely adopted by marketing co-ops. For example, 60% of them used a differential pricing policy.

Tables 2.3 and 2.4 show the results for the hypothesized relationships developed in the previous section. The results were obtained by ordinary least squares regression. F-tests were used to test specific hypotheses regarding groupings of explanatory variables (i.e., co-op attributes) (Maddala, 1989). We tested for collinearity among the variables by calculating the variance inflation factor (VIF)<sup>6</sup> for each of the regression coefficients. The VIF ranged from a low of 1.097 to a high of 1.673, well below the cut-off of 10. This shows that it is possible to separate the effects of individual variables on performance. In the first column of Table 2.4, the explanatory variables are presented. The second column in Table 2.4 indicates the coefficients of the variables hypothesized to explain co-ops' performance. Overall, the results showed that the regression model was significant ( $F = 4.87$ ,  $p < 0.001$ , adjusted  $R^2 = 0.35$ ), which indicates that strategic attributes and organizational attributes partly explain performance.

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<sup>6</sup> Multicollinearity exists when there is a strong correlation between two or more predictors in a regression model. Multicollinearity makes beta coefficients untrustworthy and limits the size of R. The VIF is a collinearity diagnostic, which indicates whether one predictor has a strong relationship with the other predictors. Values below 10 suggest no concern for multicollinearity (Field, 2009).

**Table 2.3** - F-tests for groups of parameters

	Performance	Market Orientation	Brand Orientation
<i>Organizational Attributes</i>			
Control	0.82	0.38	1.22
Ownership	0.79	1.34	0.49
Cost/Benefit Allocation	0.48	2.99***	0.47

\*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$ .

The first hypothesis, H1a, which predicted that restructured control elements positively influence performance ( $F = 0.82, p = 0.55$ ), was not supported. However, decision-making responsibility had a marginal positive influence on performance ( $\beta = 0.49, p = 0.049$ ) when a one-sided significance test was performed. Hypothesis H1b, predicting that the restructured ownership attributes positively influence performance, was not supported ( $F = 0.792, p = 0.64$ ). The only (marginally) significant predictors were alignment of equity with patronage ( $\beta = 0.369, p = 0.058$ ) and appraisal of ownership rights (interest) ( $\beta = 0.786, p = 0.0665$ ) when one-sided significance tests were performed. Likewise, H1c, holding that restructured cost/benefit allocations positively influence performance, was not supported ( $F = 0.48, p = 0.785$ ). Thus, restructured organizational attributes did not seem to improve performance. In contrast, H2 and H3 which predicted that market orientation ( $\beta = 0.38, p < 0.01$ ) and brand orientation ( $\beta = 0.33, p < 0.01$ ) would enhance the performance of co-ops, were supported. This means that strategic attributes clearly improved the performance of agribusiness co-ops. Also, in support of H5, market orientation positively influenced brand orientation ( $\beta = 0.77, p < 0.001$ ).

The third column in Table 2.4 presents the results regarding the determinants of market orientation. We tested again for collinearity among the variables by calculating the VIF for each of the regression coefficients. The VIF ranged from a low of 1.081 to a high of 1.483, well below the cut-off of 10. This

shows that it was possible to separate the effect of individual variables on market orientation.

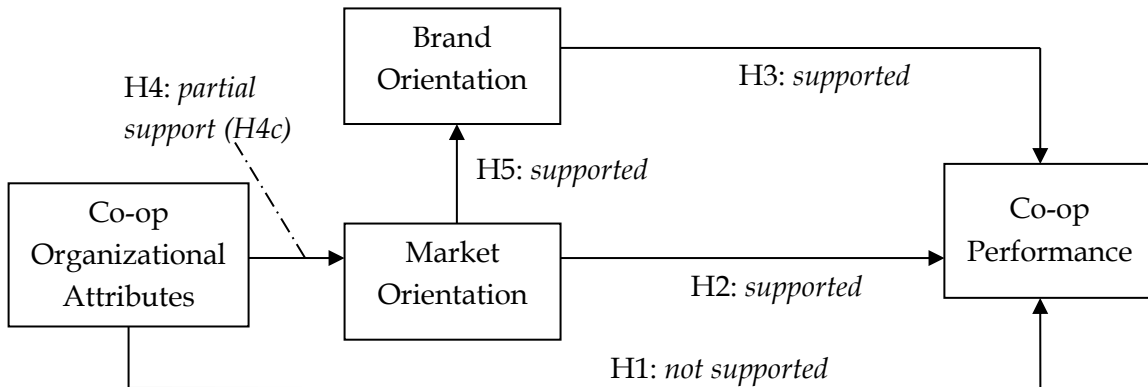
**Table 2.4** - Regression parameter estimates

	Performance	Market Orientation	Brand Orientation
<i>Strategic Attributes</i>			
Brand orientation	0.33***		
Market orientation	0.38***		0.77***
<i>Organizational Attributes</i>			
Control			
Voting rule	0.14	-0.02	-0.59
Decision making	0.49*	0.08	-0.08
Ownership			
Claim 1 (preferred shares)	-0.20	-0.66	-0.01
Claim 2 (subsidiary)	-0.04	-0.02	0.26
Equity-patronage alignment	0.37*	0.10	0.41*
Transferable ownership rights	-0.11	-0.16	0.48*
Appraisal 1/interest	0.78*	0.49	-0.45
Appraisal 2/change in fee	-0.23	-0.05	-0.50
Exit barriers	-0.25	0.27*	-0.29
Cost/Benefit Allocation			
Nature of delivery agreement/ sanctions <sup>a</sup>	0.13	0.25*	0.01
Differentiated pricing	-0.22	0.43***	0.19
Differentiated cost pricing	0.16	-0.34	-0.03
<i>Adjusted R<sup>2</sup></i>	0.35	0.15	0.18
<i>F statistic</i>	4.87***	2.38***	2.86***
<i>N</i>	114	114	114

\*  $p < 0.1$ ; \*\*  $p < 0.05$ ; \*\*\*  $p < 0.01$  (one-sided tests); <sup>a</sup> As mentioned in the section "Measures & Measurement Assessment Procedures", the two attributes "nature of delivery agreement" and "sanctions" were combined into a new variable.

The results showed that the model was significant ( $F = 2.55$ ,  $p < 0.01$ ), with an *adjusted R<sup>2</sup>* equal to 0.15. This indicates that organizational attributes partly explained market orientation. Thus, restructured organizational attributes influenced performance by influencing the co-op's market orientation. However,

the findings indicated no support for H4a (restructured control attributes positively influence market orientation;  $F = 0.38, p = 0.88$ ), nor for H4b (restructured ownership positively influences market orientation;  $F = 1.34, p = 0.21$ ). Only the ownership element regarding exit barriers<sup>7</sup> ( $\beta = 0.27, p = 0.095$ ) had a marginally significant and positive influence on market orientation when a one-sided test was performed. H4c (restructured cost/benefit allocations influence the market orientation of co-ops) received support ( $F = 2.99, p < 0.05$ ). Particularly, obligatory delivery agreements ( $\beta = 0.25, p = 0.085$ ) and differentiated prices paid to members ( $\beta = 0.43, p < 0.01$ ) had a positive influence on market orientation when one-sided significance tests were performed. In contrast, differential cost pricing had an unexpected marginal negative influence ( $\beta = -0.34, p < 0.1$ ). Figure 2.2 summarizes the results of Study 1<sup>8</sup>.



**Figure 2.2** – Hypothesis testing summary for Study 1

<sup>7</sup> Twenty-seven percent of co-ops in our sample had introduced exit barriers, the majority of whom set them at three years. We run a statistical test to check whether differences could be found between the groups of co-ops who had set them up to three years (62%) and the rest who had set more (i.e., from five to 10 years). A Mann-Whitney U-test showed no differences neither for market orientation ( $z = -1.101, p = 0.271$ ) nor for performance ( $z = -0.319, p = 0.750$ ). A Mann-Whitney U-test is a statistical hypothesis test for assessing whether one of two samples of independent observations has different values from the other. It is a nonparametric equivalent of the independent samples t-test (Field, 2009).

<sup>8</sup> We included the type of co-op (i.e., first-order or UAC) as a control variable, but no difference was found.

## METHODOLOGY AND RESULTS: STUDY 2

### Research Design

We selected 35 UACs that had participated in Study 1 four years before, representing approximately  $\frac{1}{3}$  of the total active agribusiness co-ops in Greece at the time of Study 2. We once again followed the key informant method, which led us to approach the general managers for information. To control for any response pattern bias, only UACs with the same key informants as in Study 1 were included. The research instruments (e.g., a formal, structured questionnaire) were identical to those of Study 1. Questionnaires were mailed to the 35 general managers, and 30 were returned, equaling a response rate of 86%. Only respondents without any missing values were included in the analyses, leading to the exclusion of three respondents; two questionnaires were further dismissed, as the respondents differed from those in Study 1. Consequently, 25 responses were used for further analyses.

### Analysis and Results

We examined the differences in the adoption of the attribute elements over time (i.e., from study 1 to study 2). We assigned a value of “0” to all the traditional elements, while all the restructured ones received a value of “1”. We subsequently summed all the values to generate an overall “restructuring score”, which suggested that the vast majority of co-ops had enhanced their degree of restructuring over time, as it was higher at the time of Study 2. A Mann–Whitney *U*-test<sup>9</sup> revealed a statistically significant difference between the restructuring scores of Study 1 and Study 2, respectively ( $z = -2.83, p < 0.01$ ). Moreover, the score was higher for 17 out of 25 examined co-ops, while it decreased in only two co-ops.

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<sup>9</sup> The Mann–Whitney *U*-test is a statistical hypothesis test for assessing whether one of two samples of independent observations has different values from the other. It is a nonparametric equivalent of the independent samples *t*-test (Field, 2009).



The enhanced restructuring was primarily driven by attribute elements relating to non-voting voluntary capital, member commitment, and delegation of decision-making responsibility. As far as non-voting capital is concerned, at the time of Study 2, almost one-third of the co-ops had opted for this form of capital, whereas at the time of Study 1 none in our sample had issued preferred shares. Regarding the attribute elements relating to member commitment, one-third of the co-ops had introduced a basic form of exit barrier, while only two had done so at the time of Study 1. Moreover, more than one-third had introduced sanctions to dissuade members from defaulting on their delivery agreements and co-op patronage. As a result, even though at the time of Study 1 only two co-ops had adopted either feature, at the time of Study 2 there was a clear move toward the restructured type, reinforcing member loyalty and actively discouraging members from free-riding at the expense of loyal members. Finally, the merits of allocating decision-making responsibility to professionals seem to have been realized as by the time of Study 2 only one-fifth of the co-ops in question were principally managed by non-professionals.

Despite the overall enhanced restructuring, it is also striking that co-ops re-adopted traditional characteristics. This was particularly demonstrative for attribute elements relating to member investment and pricing. First, in the case of “equity alignment with patronage”, the number of co-ops that had opted for a return to the traditional type of initial member capital exceeded those that had chosen to link member equity capital to actual physical delivery. Second, quite a few co-ops had re-adopted equal treatment in terms of cost pricing. In other words, differential charges on the basis of various criteria, e.g., production volume, were discontinued in some co-ops. This was not really surprising as differential cost pricing even had a negative effect on market orientation in Study 1. In sum, it seems that the re-adoption of traditional characteristics was almost exclusively related to elements of internal capital arrangements, i.e., member equity and pricing.

As far as strategic attributes are concerned, no statistically significant differences were observed across time. The Mann-Whitney U-tests suggested that the higher mean scores of market orientation and brand orientation in 2010 were not largely different from those in 2006 ( $z = -1.253$ ,  $p = 0.210$  and  $z = -0.282$ ,  $p = 0.778$ , respectively). In other words, the co-ops did not significantly enhance their strategic attributes over time. Regardless, the correlation coefficients presented in Table 2.5 show that performance was still driven by strategic elements. Both market and brand orientation correlated strongly with performance ( $\tau = 0.395$ ,  $p < 0.01$  and  $\tau = 0.576$ ,  $p < 0.01$ , respectively), lending support to hypotheses H2 and H3. Also, market and brand orientation correlated with each other ( $\tau = 0.339$ ,  $p < 0.05$ ) to a good extent, offering support to H5. In contrast, the correlation between the restructuring score and performance did not reach statistical significance ( $\tau = 0.196$ ,  $p = 0.204$ ), failing to support H1. However, restructuring correlated with market orientation ( $\tau = 0.301$ ,  $p < 0.10$ ), offering support to H4. It should be noted, though, that the sample size did not allow for a separate investigation of sub-hypotheses H1a, H1b, H1c, H4a, H4b, and H4c, respectively.

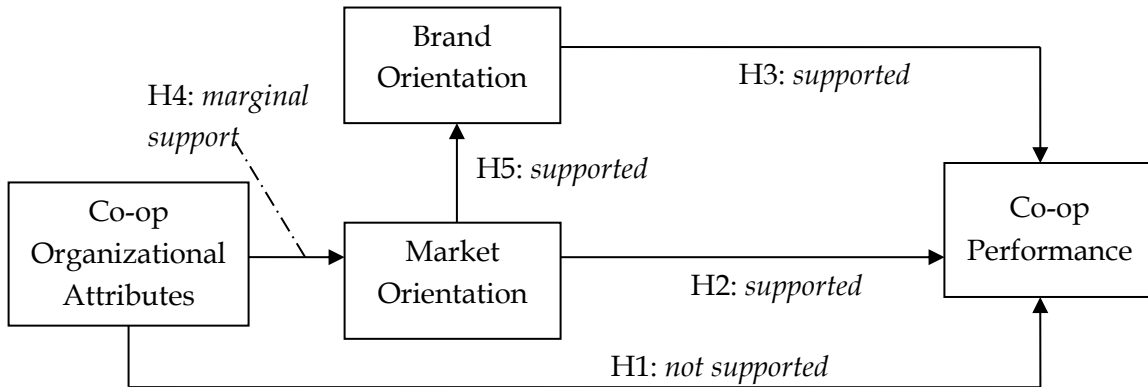
**Table 2.5** - Correlation matrix <sup>a</sup> of the examined constructs in Study 2

	X1	X2	X3	X4
<b>X1</b> – Restructuring score	1			
<b>X2</b> – Market orientation	0.301 <sup>+</sup>	1		
<b>X3</b> – Brand orientation	0.343 <sup>*</sup>	0.339 <sup>*</sup>	1	
<b>X4</b> – Performance	0.196	0.395 <sup>**</sup>	0.576 <sup>**</sup>	1

<sup>a</sup> Kendall's tau b<sup>10</sup>; <sup>\*\*</sup> Correlation is significant at the 0.01 level; <sup>\*</sup> Correlation is significant at the 0.05 level; <sup>+</sup> Correlation is significant at the 0.10 level.

<sup>10</sup> Kendall's tau b is a nonparametric correlation, used particularly when the data set is small and the pattern of data consists of a large number of tied ranks (Field, 2009).

Figure 2.3 summarizes the results of Study 2. It can be concluded that performance was driven by strategic attributes, but not by organizational restructuring. Similar to Study 1, organizational attributes exercised some influence on market orientation.



**Figure 2.3** – Hypothesis testing summary for Study 2

## GENERAL DISCUSSION

### Discussion and Implications

This article is among the first to examine systematically the relationships between the organizational attributes, strategic attributes, and the performance of co-ops. We developed an empirically grounded classification scheme for providing detailed perspectives on whether and how restructured co-op attributes influence market orientation and performance.

We further examined the influences of strategic attributes on performance. The finding, in the two studies conducted here, that organizational restructuring does not seem to influence co-op performance directly is striking. The picture is somewhat different when the influence of organizational attributes on market orientation is considered. Study 2, for example, shows a positive, albeit marginal, overall effect of restructured organizational attributes on market orientation. Similarly, in Study 1, some attribute elements have been shown to exert some

influence. Differentiated pricing, delivery agreements and the establishment of exit barriers all have a (marginally) positive influence on the market orientation of co-ops. As Reynolds (1997), Cook and Iliopoulos (2000), Nilsson (2001), and Kalogeras et al. (2009), among others, have analyzed, ownership and cost/benefit agreements that tie up members' economic resources in corporate operational (e.g., delivery agreements and exit barriers) and functional activities (e.g., pricing policies) help co-ops stabilize their supply flows to serve specific market segments.

Our results suggest that any reform of co-op structures should be geared toward stimulating member commitment in the long run in order to serve and target their existing and potential customers effectively and efficiently. Although building market-oriented co-op structures requires capital-intensive strategic plans and tactics that may result in reduced member proceeds in the short run (Borgen, 2011; Hardesty, 2005), these types of investments often reinforce co-ops' performance in the long run and provide sustainable competitive advantages (Nilsson, 2001; Salavou and Sergaki, 2013).

Second, our results in both studies suggest that the strategic attributes of co-ops substantially influence performance. These results are in line with past analytical and descriptive work, which emphasizes the importance of customer-focused strategies for agribusiness co-ops (e.g., Hendrikse, 2011; Meulenbergh, 2000; Peterson and Anderson, 1996; Salavou and Sergaki 2013), such as branding (Hardesty, 2005). These results also confirm advances in marketing management science (e.g., Morgan et al., 2009; Urde et al., 2013; Verhees and Meulenbergh, 2004) regarding the role of market and brand orientation as stimulators of performance. This is apparent in the case of agribusiness co-ops in Greece, who are challenged to abandon their passive market role and create conditions for the development of a true market and brand orientation, regardless of the difficulties or costs involved. As market and brand orientation effects often take time to

materialize (Kumar et al., 2011), co-op members might not experience the benefits in the short-run and, thus, disfavor organizational changes that, in turn, facilitate these strategic choices. Also, market-oriented decisions (e.g., response to customer demand for more environmental-friendly production) might require changes or extra effort on the part of members and, thus, encounter member skepticism.

Actually, agribusiness co-ops in Greece seem to be reluctant to adopt organizational innovations introduced by policy reforms. As Study 2 shows, organizational restructuring was enhanced over time, yet quite a few attribute elements still reflect the traditional form. In some cases, elements were even reverted to the traditional type. In general, obligatory member investment instruments such as equity-patronage alignment seem to be disfavored, in sharp contrast to optional capital tools like preferred shares, which are open to external investors and, thus, to outside, non-member capital. Also, non-member involvement in decision control (i.e., professional management) seems to gain increasing support, as both studies show. This is not surprising as having professional management with a high degree of market expertise has been established in the co-op literature as a critical success factor for performance (Adrian and Green, 2001; Cook, 1994; Hueth and Marcoul, 2009). The delayed adoption of restructured characteristics and the re-adoption of traditional ones raise two fundamental questions: first, whether policy reforms on co-ops reflect the widely accepted preferences of the market participants. Second, whether and to what extent organizational change drives, or is driven by legal change.

Overall, the results confirm and extend previous work on the relationships between the organizational attributes, strategic attributes, and the performance of co-ops (e.g., Chaddad and Cook, 2004; Kalogeras et al., 2009; Kyriakopoulos et al., 2004). Of course, care should be taken not to generalize these results due to our decision context's specific institutional and market-

related characteristics. Yet, our results may have some implications for the continuing research on co-op organizational and strategic attributes. For researchers, this study may stimulate the use of empirical methodologies accounting for qualitative and quantitative observations/inputs in determining and providing detailed perspectives on co-ops' restructuring and strategic behavior under differing institutional and environmental conditions. For policymakers and managers of co-ops, the findings of the current study might provide some useful guidance. That is to say, aggressive marketing strategies eventually add value to the product-market combinations of co-ops and, hence, value-focused thinking and market orientation on the part of co-ops may lead to substantial profits that benefit the members in the long run.

### **Limitations and Future Research Suggestions**

The current study is subject to the limitations inherent in this type of research. The use of an inductive approach for constructing a classification scheme may redeem the inherent weakness of the limited scope of our second empirical study. Longitudinal research allows for the investigation of causal relationships, yet our overall empirical design cannot be strictly classified as such. Nonetheless, the empirically grounded classification scheme used partly compensates for the inability to establish causality between the various relationships. At this juncture, future research may re-examine the hypotheses put forward in this Chapter by using a more parsimonious longitudinal research design.

We viewed co-ops' performance as a subjective concept and measured it accordingly. We discussed the complexity of evaluating co-op performance, where simple market-based performance measures do not suffice (Cook, 1994; Soboh et al., 2009). Also, in our decision context, net income allocation is realized through dividend refunds on a patronage basis, unless members decide to use it differently (e.g., to fund an investment project). A co-op maximizing its profits in

order to actively returning patronage dividends can be considered as an effective agent (Fulton and Giannakas, 2001). Thus, our choice of perceived (i.e., self-reported) performance primarily through market indicators such as sales volume, profits, and new market entry seems to match our decision context performance idiosyncrasies. However, our studies have only partly addressed the nature of the co-op as an organization with a dual performance target, that of satisfying member objectives (e.g., member profitability) next to meeting organizational goals (e.g., sustaining financial growth). In the Chapter that follows, we revisit the issue of co-op performance measurement and offer extensive research avenues.

In general, as co-ops are increasingly challenged by divergent member interests, the issue of heterogeneity in member preferences and profiles warrants special research and practical attention. The diversity in member preferences regarding co-op attributes and strategic focus may be caused, for instance, by differences in member characteristics (e.g., large vs. small sized members) and thus signal the emergence of a multi-string organizational structure (Kalogeras et al., 2009). Such a governance structure may embody a wide range of ownership agreements that satisfy the expectations of member segments regarding co-op's as well as their own performance. Co-ops may also need to implement micro-governance mechanisms (e.g., relationship management programs) to be in a position to better understand the tangible and latent member preferences (Chaddad and Iliopoulos, 2013).

Finally, we contended that more market- and brand-oriented businesses were best positioned for success under all environmental conditions. However, this study did not aim to investigate whether or not the hypothesized relationships were moderated by other micro- or macro-economic conditions. For example, the instability in the economic environment resulting from the economic crisis, which started between our data-collection points, might have

influenced co-op managers' and members' decisions. This could also partly explain why strategic attributes were not reinforced over time, as Study 2 showed. Perhaps further strategic enhancement might have been inhibited by the adverse general economic climate. Future research may consider the influence, direct or otherwise, of other environmental conditions, such as the impact of external competitive forces on the restructuring and strategic behavior of co-ops.





## CHAPTER 3

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# Harnessing a “Currency Matrix” for Performance Measurement in Co- operatives: A Multi-Phased Study

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*This chapter is based on:*

Benos, T., Kalogeras, N., Wetzels, M., de Ruyter, K., and Pennings, J.M.E. (2018). Harnessing a “currency matrix” for performance measurement in cooperatives: A multi-phased study. *Sustainability*, 10(12), 4536.

## INTRODUCTION

On the “International Day of Co-operatives” in 2015, the former United Nations (UN) Secretary-General Ban Ki-Moon appealed for all people to “recommit to the co-operative business model, which could help make the vision of a sustainable future a reality for everyone” (UN, 2015). Indeed, as member-owned, values-based, people-centered and principles-driven organizations, co-operative (co-op) enterprises are by nature a sustainable and participatory business form, which have shown remarkable resilience in the face of economic and financial crises (Birchall, 2011; ICA, 2013). Notably, co-op employment involves at least 279 million people in the world, almost 90% of whom are farmers organizing their production within the scope of co-ops (CICOPA, 2017). Co-ops contribute to sustainable development well beyond job creation (Smith and Rothbaum, 2013), however, often serving as frontrunners of social and environmental innovation, and habitually setting benchmarks that others follow (e.g., as the first ever organizations to grant women the right to vote and own shares) (ICA, 2013; ILO, 2014; Mojo et al., 2015). In fact, the co-op organizational form has proved to be particularly suited in addressing contemporary societal challenges too, such as protecting the environment (e.g., organic farming and consumption, financing of environmentally friendly projects), mainstreaming product-related novelties (e.g., fair trade, nutritional labelling), and providing a range of affordable financial services to or securing employment for marginalized groups (e.g., hiring or granting loans to socially disadvantaged people) (Birchall and Ketilson, 2009; Huybrechts and Mertens, 2014).

Nevertheless, knowledge about co-ops’ socio-economic impact is rather limited (Carini et al., 2015), mainly due to the scarcity of measurement and reporting by co-ops themselves in addition to the dearth of comprehensive datasets on their outcomes (Brown and Novkovic, 2015). For example, although sustainability reporting is increasingly a default practice of organizations

worldwide (Mura et al., 2018; Truant et al., 2017), the vast majority of co-ops do not prepare any sustainability reports (ICA, 2016). Interestingly, while the subject of business performance assessment continues to top the academic and practitioner agenda (Beer and Micheli, 2018; Bititci et al., 2012), co-ops less consistently measure it, let alone report it (McKinsey & Company, 2012). On an aggregate basis, the “World Co-operative Monitor” initiative is practically the only regular public reporting of economic and social data on the global co-op movement (World Co-operative Monitor, 2017). At the same time, despite the plethora of academic studies and policy reports on co-op performance (see Soboh et al., 2009 and Van Herck, 2014 for an overview), the debate on how to best appraise it is open (Benos et al., 2016; Chibanda et al., 2009; Kalogeras et al., 2013; Marcis et al., 2018). In other words, the need for conceptual and empirical consolidation of research on the issue of co-op performance measurement remains pertinent (Brown and Novkovic, 2015).

Moreover, extant research customarily has neglected to specifically address the nature of co-op distinctiveness interlinked with the pursuit of dual performance objectives (Cadot and Ugaglia, 2018; Franken and Cook, 2015; Soboh et al., 2009), having favored the corporate over the member orientation. Prior work has focused on readily available financial accounting measures commonly used to evaluate investor-owned firms (IOFs) or has applied advanced quantitative techniques (e.g., Data Envelopment Analysis) to estimate economic and technical efficiency (Van Herck, 2014). Likewise, in practice, most co-ops that engage in reporting have employed tools that were designed for IOFs (e.g., GRI and LEED for sustainability metrics) (ICA, 2016). The unquestioning use of accounting and reporting standards reflecting those of IOFs merely bolsters isomorphic tendencies (Brown and Novkovic, 2015), to the detriment of the social-membership perspective (Bhuyan, 2007; Kalogeras et al., 2009). Of course, this might be predisposed by the underlying trend of ‘professionalization’ or ‘corporatization’ (Forney and Häberli, 2017; Hanisch et

al., 2013), which undermines the specificities of co-op organizations (Bijman et al., 2014; Nilsson et al., 2012), and time and again raises identity or even mission drift concerns (Foreman and Whetten, 2002; Novkovic, 2008; Puusa et al., 2013). Besides, mainstream management research has called for appropriately aligning the measurement of organizational performance with the research contexts in question along a more human-centered approach (Beer and Micheli, 2018; Richard et al., 2009).

The objective of this Chapter is to deliver a comprehensive dashboard for co-op performance assessment which mirrors the co-op organizational form's idiosyncrasies and harmonizes business-social aspects. To address our objective, we consolidated empirical research on co-op performance metrics, created a new framework, and empirically tested it with experts' views. More specifically, we first conducted an extensive literature review on empirical academic and policy work, drawing from an extended pool of articles and reports published over the past 40 years, paying equal attention to the business and membership perspectives as well as the different sectors. However, we concentrated on work in the agricultural domain and tailored the framework accordingly. We then tested it with input from a Delphi study with co-op experts and narrowed it down to a workable dashboard of three sub-categories. We also set forth a manageable bundle of metrics that could be utilized by future work, even though we posit that future studies should select metrics in line with their context and research goals.

Furthermore, inspired by the interdisciplinary conversations between co-op and non-profit organizations put forward by Valentinov and Iliopoulos (2013) and between co-ops and social enterprises set out by Borgaza et al. (2011), we proceeded to complement the proposed framework with a review of the literature on the performance of social enterprises. In the quest for counterpoising the counter-productive pro-IOF isomorphism while facilitating a

productive inter-organizational ‘fertilization’, we set out to prompt an interdisciplinary dialogue between organizations that not only differ from IOFs but also face similar ends and challenges. Undeniably, co-ops and social enterprises could be an integral part of such an endeavor, as both are devoted to accomplishing (social) missions and bound to maintaining financial viability through market competition. Not unexpectedly, this attempt enabled us to affirm the need for more attention to the social perspective, doing justice to the distinctiveness and the societal outreach of the co-op business form.

The present work, therefore, contributes to the literature on co-ops, particularly to the academic inquiry of agricultural ones. It provides both new insights on the debate of co-op performance measurement and a “currency matrix” (i.e., a performance dashboard serving as a medium of knowledge exchange) that balances the dual nature of co-ops. In so doing, it invites scholars to use the “matrix” for future studies and, thereby, seek consensus on an array of performance metrics upon which to base empirical investigations henceforth. Equally, the proposed “matrix” will hopefully be useful for practitioners when conducting internal assessments or external reporting. Furthermore, even though the outcomes might not contribute to the current debates on sustainability measurement per se, they are relevant to scholars in the field of sustainability research. That is, sustainability researchers may benefit from the performance assessment analysis of an organizational form that is well (if not most) suited to contribute to sustainable development (Birchall and Ketilson, 2009; ICA, 2016; ILO, 2014; Smith and Rothbaum, 2013).

The remainder of the Chapter is organized as follows: We first present the reasons why we placed a focus on agricultural co-ops, the categorization which served as a basis for the proposed framework, and how the cross-fertilization with the literature on social enterprises can be fruitful. The methods applied to develop the comprehensive reviews and integrate the expert insights are

described next. Subsequently, we document the list of identified metrics and present the results from expert interviews along the refined framework. We then integrate the key findings from the review on social enterprises and present the final framework. We round off the Chapter with a discussion of the main findings and implications.

## **THEORETICAL BACKGROUND**

### **Focus on Agricultural Co-ops**

According to the universally recognized definition established by the representative body for co-ops, the International Co-operative Alliance (ICA), a co-op is “an autonomous association of people united voluntarily to meet their common economic, social and cultural needs and aspirations through jointly-owned and democratically-controlled enterprises” (Birchall and Ketilson, 2009; CICOPA, 2017; ICA, 2013). So, people choose to meet their common needs (e.g., provision of food, banking, insurance, employment, housing) through several subtypes of co-ops, such as worker, producer, retail, consumer, purchasing, financial, housing and social ones (for a detailed description see Carini et al., 2013 and World Co-operative Monitor, 2017). In effect, co-ops are part and parcel of the people-centered ‘social economy’ (see EC, 2018), and the only form of enterprise sharing internationally agreed principles (e.g., democratic member control, member economic participation) (ICA, 2013; Novkovic, 2008; Puusa et al., 2013). Not surprisingly, they are popular in many business sectors (e.g., banking, retailing, agriculture, social care), attending to more than a billion members all over the world and concurrently addressing socio-economic challenges (ILO, 2014). For instance, agricultural co-ops help farmers to process and market their produce, financial co-ops facilitate their members’ access to financial capital, and consumer co-ops make it possible for their members (and others) to access good quality household goods at affordable prices (Birchall, 2011). Stirred by co-ops’ widespread scope and appeal, we chose to review past

work for all sectors and countries. However, we focused on agricultural co-ops for three reasons.

First, co-ops have a strong market presence in the agro-food economy worldwide. They are active in almost every country and well represented in both developed and emerging economies (ICA, 2013). In 2015, just the 20 largest agricultural co-ops alone in 11 countries generated a turnover of \$273.02 billion, two of which were in India (World Co-operative Monitor, 2017). In the same year in the USA, 2,047 agricultural co-ops with 1.9 million members yielded a total gross business volume of \$212.1 billion (USDA, 2017). In China as of the end of 2015, over 40% of farm households had become members of at least one co-op (Hao et al., 2018). In Europe, despite the country variation, the average market share of all agricultural co-ops in European Union (EU) countries was estimated at 40% as of 2011 (Bijman et al., 2012).

Secondly, the development of agricultural co-ops has, as a matter of public policy, long been encouraged in several countries. In fact, in most market-oriented economies, agricultural co-ops have received public support in various forms (e.g., discrete legal frameworks, exemption from antitrust laws, beneficial tax treatment, and technical assistance) (Iliopoulos, 2013). In a recent EU-wide study, Bijman et al. (2012) identified more than 300 specific policy measures at a European, national and regional level. Not unexpectedly, the co-op form seems to be the “natural” legal form for farmers when organizing their shared business activities across Europe. Moreover, in developing countries and just between 1998 and 2011, the United States Agency for International Development (USAID) invested \$3.7 billion to assist agricultural co-ops, acknowledging that producer groups can be an essential means of combating poverty, enhancing food security, and engendering inclusive employment (USAID, 2016).

Third, the importance of agricultural co-ops has also been manifested by the marked attention they have received in academic literature (Höhler and



Kühl, 2014). A significant advance of theoretical work has taken place in the last decades (Cook et al., 2004; LeVay, 1983; Staatz, 1989; Valentinov and Iliopoulos, 2013), while studies on the performance of agricultural co-ops have enjoyed a long empirical tradition (Marcis et al., 2018; Soboh et al., 2009; Van Herck, 2014). Besides, three special issues in scientific journals have been dedicated to agricultural co-ops just in the last five years (Bijman and Iliopoulos, 2014; Iliopoulos et al., 2016; Nilsson and Ollila, 2013). The proliferation of research has been partly triggered by a seminal study commissioned in the mid-1980s by the United States Department of Agriculture (USDA, 1987). This study also provided the definition which gained nearly universal endorsement by scholars and practitioners alike (Iliopoulos et al., 2016). As we explained in Chapter 2, Dunn (1988) popularized this definition, which is summarized as three general principles of use: 1. the user-owner principle, 2. the user-control principle, and 3. the user-benefits principle. In other words, those who own, finance and control the co-op are those who use it, while the co-op's core purpose is to provide and distribute benefits to its users on the basis of their use (Bijman et al., 2012). Consequently, compared to conventional organizational forms (e.g., IOFs), whose main aim is to maximize shareholders returns, agricultural co-ops exist to provide benefits to member-producers. Likewise, as opposed to conventional organizational forms which are owned and controlled by outside shareholders who may not patronize the firm, agricultural co-ops are uniquely owned and controlled by members who deliver their produce and/or buy inputs.

Taken together, the distinctiveness and significance of agricultural co-ops in practical, policy and academic terms motivated us to place emphasis on them. Moreover, we assumed that to build a solid basis for a reliable and valuable dashboard, we had to zoom into the most well-studied and deep-rooted domain before embracing the diversity of co-op subtypes. As a result, even though we considered studies in all sectors, we concentrated on the agricultural domain.

## Preliminary Framework

As past systematic reviews (e.g., Sexton and Iskow, 1993; Soboh et al., 2009; Van Herck, 2014) have pointed out, the empirical literature on co-op performance has mainly focused on the co-op organization as a separate firm. This reflects one of the three distinct schools of thought in the modern economic theory of co-op organizations, which views the latter as an independent firm optimizing some objective function (Cook et al., 2004). Enke (1945) was the first to analyze the co-op as a separate firm, while several other scholars ascribed to this line of research, each suggesting a different single objective that the co-op (as a separate enterprise) would seek to maximize (Valentinov and Iliopoulos, 2013). Empirical studies of co-op performance mostly favored the profit-maximizing alternate, treating the co-op firm as an IOF or an IOF-variant, albeit with different types of stockholders (Soboh et al., 2009). Not surprisingly, the empirical literature on co-op performance has been dominated by two categories, with the first consisting of studies utilizing financial metrics, and the second comprising studies engaging in efficiency assessment (Van Herck, 2014).

We acknowledge that co-ops have to meet mainstream corporate performance standards for the corporative body to survive (or thrive) as well as to continue delivering member and social benefits (Arcas and Ruiz, 2003; Hind, 1994). However, we attest to the view that success needs to be also appraised in terms of the benefits members receive as opposed to the performance of the co-op alone (Bhuyan, 2007; Bond, 2009; Brown and Novkovic, 2015; Hind, 1994; James and Sykuta, 2005; Parliament et al., 1990). Hence, in recognition of the dual nature of the co-op organizational form, we prepared our preliminary framework along two broad categories. The first addresses more of the business nature of co-ops and takes the organization as a unit of analysis. It is further divided into three sub-categories. The second broad category addresses the social-membership perspective, takes the member(s) as a unit of analysis, and is

further divided into two sub-categories (see Table 3.1). The first two sub-categories, coded as “business financial appraisal” (BFA) and “business efficiency appraisal” (BEA) respectively, are similar to the dominant ones in the literature mentioned above. The third sub-category, coded as “subjective business appraisal” (SBA), relates to subjective and perceptual performance measures at an organizational level. As for the second set of sub-categories, the first one, coded as “objective membership appraisal” (OMA), is based on objective membership evaluations, while the second, coded as “subjective membership appraisal” (SMA), is based on subjective membership assessments.

**Table 3.1** - Preliminary framework overview

Categories	Sub-categories	Unit of analysis
Business	<ul style="list-style-type: none"> <li>• Business financial appraisal (BFA)</li> <li>• Business efficiency appraisal (BEA)</li> <li>• Subjective business appraisal (SBA)</li> </ul>	The co-op
Social-membership	<ul style="list-style-type: none"> <li>• Objective membership appraisal (OMA)</li> <li>• Subjective membership appraisal (SMA)</li> </ul>	The member(s)

### ***Business Financial Appraisal (BFA)***

BFA is grounded on financial (accounting) data typically found in a co-op’s financial statement. Such data reflect the effect of corporate strategic decisions and is customarily used as an input in financial ratio analysis (Bond, 2009; Parliament et al., 1990). The latter is a standard technique of financial performance evaluation, conveying crucial information on an organization’s operations and financial situation (Boyd et al., 2007). The use in empirical co-op studies is outstanding (e.g., Ebneeth and Theuvsen, 2005; Kalogeras et al., 2013; Kenkel et al., 2003; Lerman and Parliament, 1991; Ling, 2006; McKee et al., 2009; Melia-Marti and Martinez-Garcia, 2015; Moller et al., 1996; Rebelo et al., 2017). Financial ratio analysis is used for comparative purposes too (e.g., industry-specific sector comparisons) (Baourakis et al., 2002; Soboh et al., 2011). Strikingly,

a large body of work comparing the performance of co-ops with that of IOFs in the same sector(s) (e.g., dairy, grain, farm supply) is present (e.g., Ananiadis et al., 2003; Harris and Fulton, 1996; Lerman and Parliament, 1990; Ling and Liebrand, 1998; Martinez-Victoria et al., 2018; Notta and Vlachvei, 2007; Soboh et al., 2011; Valette et al., 2016). Moreover, some studies (e.g., Bijman et al., 2013; Rogers and Petraglia, 1994; Sergaki and Semos, 2006) employ sales-based metrics (e.g., market shares, sales growth, the Lerner index) next to financial ratios to paint a more complete picture of financial measures and co-op performance.

Examining financial data and utilizing ratios provides officials, members, and creditors with a glimpse of the co-op's strengths and weaknesses. In fact, financial measures have several advantages in terms of collectability, scalability, level of objectivity, and comparability (Gentzoglanis, 1997; McKee et al., 2009). Perhaps their chief virtue is that they are replicated and benchmarked across all types of organizations (Richard et al., 2009). However, there are some inherent problems associated with them, particularly with common ratios (e.g., profitability, liquidity, debt ratios). Some problems are intrinsic with the ratios themselves, and some are with the co-op structure (Chesnick, 2000; Melia-Marti and Martinez-Garcia, 2015). For instance, financial ratio analysis fails to consider that a co-op can be seen as a vertically integrated entity including the members and their businesses (Sexton and Iskow, 1993) or to account for all of the financial effects of management decisions on the collective entity (McKee, 2008). Also, traditional financial measures and analyses disregard the double role of members (i.e., users and owners) or that members are often paid above the market price for the products they supply to their co-op (Babb and Boynton, 1981; Parliament et al., 1990; Soboh et al., 2011). Furthermore, neither financial measures nor ratio analyses account for the benefits of government support or the value of non-market benefits provided by the co-op to members or the greater community (Bond, 2009; Harris and Fulton, 1996). Notwithstanding the drawbacks, financial measures remain primary in co-op performance appraisal

(Guzmán and Arcas, 2008; Melia-Marti and Martinez-Garcia, 2015; Van Herck, 2014).

### *Business Efficiency Appraisal (BEA)*

BEA is centered on production function data that is utilized for efficiency assessment and comparisons (Soboh et al., 2012). The term “efficiency” is used to describe the level of performance that can be reached by an economic unit in accordance with its production possibilities (Guzmán et al., 2009; Singh et al., 2001). Economic efficiency, in particular, refers to a firm’s ability to convert inputs into outputs and respond optimally to economic signals (e.g., prices) (Hailu et al., 2005). The study of economic efficiency measurement has a longstanding tradition, triggered by the seminal work of Farrell (1957). In fact, Farrell identified economic efficiency on top of technical and allocative efficiency. Technical efficiency refers to the ability of a firm to produce the maximum feasible output from a given bundle of inputs (output-oriented) or produce a given level of output using the minimum feasible amounts of inputs (input-oriented) (Huang et al., 2013). Allocative efficiency assumes knowledge of the price of the different employed inputs, in order to reach the optimum output at the lowest possible cost (Sexton et al., 1989). Technical and allocative efficiency, taken together, contribute to the overall economic efficiency of the firm (Boyle, 2004). If a firm is producing on the production frontier, using the optimal proportions of inputs given relative prices, the firm is said to be economically efficient (Hailu et al., 2007).

As efficiency measurement techniques are based on economic theory, studies employing them often use input indicators for labor and capital, while for the output they commonly opt for turnover, sales or assets (Guzmán and Arcas, 2008). Depending on the different functions used (e.g., profit, cost), different efficiency variants might be favored (e.g., X-efficiency, cost efficiency, total factor productivity) (Doucouliagos and Hone, 2000; Hailu et al., 2007). Not

unexpectedly, efficiency appraisal is rather popular in empirical co-op studies (e.g., Boyle, 2004; Caputo and Lynch, 1993; Guzmán et al., 2009; Huang et al., 2013; Sexton et al., 1989; Sueyoshi et al., 1998), while quite a few compare the efficiency of co-ops with that of IOFs in the same sector (e.g., Akridge and Hertel, 1992; Barros and Santos, 2007; Chapman and Christy, 1989; Dios-Palomares et al., 2013; Maietta and Sena, 2010; Singh et al., 2001). Except for the various efficiency alternatives, in this sub-category, we also included other efficiency-related metrics commonly used in production or agricultural economics, such as scale and scope elasticities (Schroeder, 1992) or the comparative cost index (Sueyoshi et al., 1998).

It is notable that the greater accuracy of efficiency measures makes them an appealing alternative to ratio analysis (Sexton and Iskow, 1993). Nonetheless, large data demands or confidential data (e.g., information on inputs and outputs) make these measures challenging to estimate (Bond, 2009; Guzmán et al., 2009). The estimation becomes even more puzzling when multi-product and/or multifactor productive processes are examined (Guzmán and Arcas, 2008). Most importantly, as efficiency measures require an economic behavioral assumption (e.g., an objective of profit maximization or cost minimization) (Hailu et al., 2005), extant studies view the co-op as an independent firm with a single objective, neglecting to address the dual nature of the organization (Franken and Cook, 2015; Soboh et al., 2009).

### *Subjective Business Appraisal (SBA)*

SBA consists of measures relating to the judgmental assessment of internal or external respondents regarding an organization's performance (Kyriakopoulos et al., 2004; Sisay et al., 2017b). Studies using these measures rely on survey-based direct elicitation means, following in the tradition of management and marketing studies which regularly employ the key informant method, whereby respondents well-informed about organizational issues give answers to item

statements (Benos et al., 2016; Richard et al., 2009). These measures usually cover financial and other indicators (e.g., operational, social) and have only been used in a handful of empirical co-op studies (e.g., Franken and Cook, 2013; Kyriakopoulos et al., 2004; Tana et al., 2017; Yang and Chaddad, 2014).

SBA measurement is often favored when objective data is difficult to obtain or insufficiently reliable (Sisay et al., 2017b). SBA metrics facilitate the assessment of complex issues (e.g., expert's view on member satisfaction) (Sisay et al., 2017a; Yang and Chaddad, 2014) as well as that of non-financial or non-market aspects (Franken and Cook, 2013; Parliament et al., 1990). Moreover, SBA measurement enables cross-sectional analysis through sectors and markets in general, as performance can be quantified in comparison to objectives or competitors (Kyriakopoulos et al., 2004; Richard et al., 2009). Despite their merits, SBA measures suffer from what their name suggests, namely a certain degree of subjectivity associated with psychological and cognitive biases (Richard et al., 2009). In fact, SBA measurement might be plagued by common biases in behavioral research, like systematic error and common method variance (MacKenzie and Podsakoff, 2012), particularly when a single respondent provides answers across the survey instrument (Podsakoff et al., 2003). Finally, SBA studies might not accurately address the dual nature of the co-op organization. That is, the indirect measurement of member perceptions only partially integrates the member perspective (Benos et al., 2016).

### *Objective Membership Appraisal (OMA)*

OMA encompasses metrics relating to observable membership characteristics (Bhuyan, 2007; Chagwiza et al., 2016; Rosairo et al., 2012), particularly with respect to user-benefit and user-control arrangements. More specifically, this sub-category relates to pricing, delivery, services, and governance data, like prices paid to members by the co-op, the percentage of in-selling (or side-selling), the scope and quality of services members receive, and

the governance systems and procedures (e.g., CEO tenure, secret ballots, audited accounts, available information to members). In agricultural co-ops, this sub-category may additionally cover features commensurate with patronage and the members' farms (Cechin et al., 2013; Ma and Abdulai, 2017; Ruben and Heras, 2012), such as farm financial ratios, profits obtained, productivity, and efficiency. One of the reasons why farmers join co-ops is that they routinely face considerable risk of income variability, often due to monopolistic exploitation (e.g., price discrimination) from upstream or downstream partners (Hanisch et al., 2013; Valentinov and Iliopoulos, 2013). Consequently, success at the farm level is also contingent on co-op membership and can, thus, be partly estimated based on patronage-related data (Mishra et al., 2004; Mujawamariya et al., 2013).

OMA metrics showcase what benefits members receive as well as to what extent members support their co-op in return (Wollni and Fischer, 2015). They are based on objective data and, if co-op registries are present or if the co-op statutes are readily available, OMA information can be directly sourced. In the absence of such sources as well as when farm-level data is sought, survey-based methods (e.g., structured questionnaires) are used instead (Ma and Abdulai, 2017), which often make the data collection process somewhat troublesome, as data access might condition the consent of co-op officials or members themselves (Chagwiza et al., 2016). Moreover, OMA measures in isolation cannot truly address the dual nature of the co-op organization; neither do they account for the performance of a co-op as an entity nor reflect all member benefits (e.g., satisfaction with membership aspects). In reality, they do not integrate member perceptions, but rather member conduct, outward user-benefit or user-control arrangements, and farm performance.

### *Subjective Membership Appraisal (SMA)*

SMA comprises measures relating to the judgmental assessment of co-op members regarding the benefits they receive from membership and their co-op's



performance in general (Alho, 2015; Liebrand and Ling, 2014). These measures habitually cover members' general stance towards the co-op (e.g., overall satisfaction, intention to continue membership) (Figueiredo and Franco, 2018; Hernández-Espallardo et al., 2013), members' evaluation of financial aspects (e.g., satisfaction with price or market arrangements) (Bhuyan, 2007; Susanty et al., 2017), and members' evaluation of non-monetary membership aspects (e.g., members' influence on internal decision-making, satisfaction with information flow) (Feng et al., 2016; Liebrand and Ling, 2014). In the vast majority of the few empirical co-op studies that rely on SMA measures (e.g., Figueiredo and Franco, 2018; Hernández-Espallardo et al., 2013; Van Rijsbergen et al., 2016), multi-item scales are favored. The latter are usually drawn from constructs developed and validated in mainstream marketing or management studies (Arcas-Lario et al., 2014; Susanty et al., 2017).

SMA measures facilitate the direct assessment of member benefits, unveiling how members think and feel towards their co-op or even how they might behave in the future (Liebrand and Ling, 2014). Also, SMA measures can capture non-pecuniary and non-market aspects of co-op behavior (Alho, 2015). Nevertheless, SMA data might be difficult or time-consuming to obtain, as it requires the consent and willingness of members to participate in field work, which might be challenging for producers or members of advanced age (Figueiredo and Franco, 2018). Moreover, similar to SBA metrics, SMA measurement might suffer from cognitive and psychological biases (MacKenzie and Podsakoff, 2012; Richard et al., 2009). Finally, SMA measures alone cannot address the dual objective nature of the co-op organization, as they do not account for the latter's performance as an entity. Members' benefits are naturally conditioned by the co-op's achievements (Sisay et al., 2017a), so SMA metrics might mainly be reflecting rather than assessing organizational performance.

## **The Cross-fertilization Potential with Social Enterprises**

Social entrepreneurship is a way of addressing societal needs through the utilization of economically sustainable market strategies (EC, 2011; Scarlata et al., 2016). Social enterprises are social mission-driven organizations that trade in goods or services for a social purpose (Bagnoli and Megali, 2011; Battilana and Lee, 2014). They are typically positioned between profit and non-profit organizations (Crucke and Decramer, 2016). On the one hand, they differ from the former (hence also IOFs) as profit is a means to create social value rather than an end per se. On the other hand, they present an alternative to non-profit models which are naturally dependent on grants and donations (Luke, 2016). In the past couple of decades, social enterprises have attracted considerable practical and scholarly interest (Saebi et al., 2019; Smith et al., 2013), even though they belong to a relatively nascent area of research (Haigh et al., 2015). The growing interest in them is consistent with the mounting pressure on business organizations to spur positive social change by engaging in social or environmental initiatives (Ramus and Vacaro, 2017).

So, social enterprises have a propensity to blend for-profit practices with non-profit ones, though they are neither typical charities nor traditional businesses like IOFs (Arena et al., 2015). Of course, to address their core mission and, thus, optimize the creation and distribution of social value, they have to forego financial returns or reinvest them (Ebrahim et al., 2014; Scarlata et al., 2016). Combining business and social goals, they form part of the so-called 'social economy sector' which consists of those organizations that do not belong to the public and private sectors, like non-profit associations, mutual societies, and co-ops (EC, 2011). In fact, social enterprises are considered hybrid organizations whose defining characteristic is the duality of social impact alongside financial sustainability (Battilana and Lee, 2014; Haigh et al., 2015; Luke, 2016). Together with co-ops, whose hybrid identity is inherent (Foreman and Whetten, 2002),

they consistently demonstrate how to thrive as hybrid organizations attending to competing business-social demands (Ashforth and Reingen, 2014; Smith et al., 2013).

Admittedly, social enterprises and co-ops have many commonalities. They both have to be business-like and meet financial and commercial goals on top of their social ends (Spear et al., 2009). They are both seen as promising vehicles for the creation of social and commercial value, as through their business ventures they offer a ray of hope in a world filled with longstanding socioeconomic and environmental issues (Huybrechts and Mertens, 2014; Luke, 2016; Smith et al., 2013). Similar to co-ops who fill provision gaps (Birchall, 2011; Foreman and Whetten, 2002; Valentinov and Iliopoulos, 2013), particularly in disadvantaged areas, social enterprises help those left behind and serve markets habitually underserved by IOFs or governments (Arogyaswamy, 2017; Haigh et al., 2015). Actually, both social enterprises and co-ops have a potential to be architects and the engine of genuine social innovation (EC, 2011), principally through the creation of business-social networks necessary to stimulate social change (Novkovic, 2008; Scarlata et al., 2016).

By the same token, co-ops and social enterprises face a number of common challenges. First of all, the commercial activity of social enterprises might reduce their attention to the social mission (Ebrahim et al., 2014), similarly to co-ops, where business emphasis increasingly tempers their social character (Puusa et al., 2013). In other words, in their efforts to generate revenue, social enterprises run the risk of losing sight of their social missions, subjecting themselves to mission drift distress (Haigh et al., 2015; Ramus and Vacaro, 2017; Scarlata et al., 2016). This concern echoes one of the profound trends in the social economy sector, namely the steady rationalization and marketization (Ebrahim et al., 2014; Forker et al., 2014; Spear et al., 2009). In co-ops, this trend has resulted in governance changes (e.g., reduced member involvement) (Bijman et al., 2014),

and a social capital drain (Nilsson et al., 2012). In addition, focusing on both social and economic outcomes sets the stage for various forms of organizational tension (e.g., belonging, performing) (Smith et al., 2013), perplexing performance measurement too (Costa and Carini, 2016). Performing tensions emerge from the divergent outcomes social enterprises deal with, such as the varied goals they need to set, the different metrics they have to employ, or even the inconsistent stakeholder demands they are compelled to satisfy (Battilana and Lee, 2014). For example, as performance evaluation extends to both social and financial operations (Bagnoli and Megali, 2011), it is hard to sustain support for both social and financial metrics (Smith et al., 2013). Undoubtedly, pecuniary indicators are crucial for evaluating sustainable organizational progress, yet, assessing the non-financial performance is arguably equally important to ensure the core mission is met (Crucke and Decramer, 2016; Millar and Hall, 2013). Considering that co-ops are also confronted with similar performing tensions and, given the commonalities identified (Costa and Carini, 2016), it seems instrumental to investigate how literature on social enterprises has tackled the complex issue of performance assessment and thereby inform the inquiry for co-op organizations.

## **MATERIALS AND METHODS**

To reach the objective of our study, we divided our research process into three phases. In the first phase, our aim was to obtain an overview of relevant performance indicators and prepare the preliminary categorization detailed above. Therefore, we performed an extensive literature review and delimited the material according to the topic of the present article. In the second phase, our aim was to screen the sub-categories of the first phase and decide upon an acceptable dashboard. We used the Delphi technique to seek convergence on opinions from domain experts. In the third phase, we performed a literature review on the performance of social enterprises. We aimed at comparing the performance dashboard with research efforts for social enterprises and informing it with

potentially overlooked or complementary indicators. Table 3.2 gives an overview of the three phases of the research process.

**Table 3.2 - Overview of the different phases of the research process**

Research Process	Aims
Phase 1: Literature review on the performance of co-ops	<ul style="list-style-type: none"> <li>• Confirm performance sub-categories</li> <li>• Identify performance indicators</li> </ul>
Phase 2: Delphi panel with co-op experts	<ul style="list-style-type: none"> <li>• Validate performance sub-categories</li> <li>• Reach consensus on a dashboard of indicators</li> </ul>
Phase 3: Literature review on the performance of social enterprises	<ul style="list-style-type: none"> <li>• Analogies with co-ops</li> <li>• Identify complementary indicators</li> </ul>

### Phase 1

In phase 1, we followed review procedures drawn from scholarly work on performance and sustainability measurement research (Beer and Micheli, 2018; Bititci et al., 2012; Mura et al., 2018). We only considered contemporary research, demarcated as scholarly and practitioner efforts involving performance measurement frameworks or metrics since 1980. To derive an initial population of articles, we conducted electronic keyword searches in major bibliographic databases, such as “AgEcon”, “JSTOR”, “Web of Science”, “ScienceDirect”, “WorldCat”, “EBSCOhost”, “Scopus”, and “Academic Search Premier”. Three of the authors and three experts on the topic (i.e., in terms of numbers of studies conducted, papers published and reviewed, and familiarity with specific journals covering co-op research) developed the keyword search strings, namely “performance measurement”, “performance appraisal”, “performance evaluation”, “performance assessment”, “efficiency”, “co-operatives”, and “credit unions”. To expedite the identification of relevant journal papers, we restricted our focus on the articles that included one or more of the search terms in the title, abstract or keywords, along with the term “co-operatives” or “credit unions”. We also consulted “Google Scholar” and, thus, conference proceedings, industry briefs, and policy reports were reviewed too, provided that the

publication was in English and under the auspices of a well-established organization (e.g., USDA) or association (e.g., the Agricultural and Applied Economics Association—AAEA). Finally, we detected overlooked sources with the aid of the three experts. Our extensive investigation revealed a notable array of research over the last decades. Each document was then examined to classify only those that contained an explicit performance framework or metric(s) for co-op organizations. All documents were double-coded by two of the authors as well as another coder with experience in co-op and organizational research.

## **Phase 2**

In phase 2, we employed the Delphi method. This is a popular technique used for the solicitation and aggregation of informed judgments from experts within specific topic areas, developed by the RAND Corporation in the 1950s and 60s (Dalkey, 1969; Strand et al., 2017; von der Gracht, 2012). In effect, it is a systematic process that seeks to achieve convergence on real-world opinions from a group of experts on certain (research) question(s) (Dalkey and Helmer, 1963; Henning and Jordaan, 2016). Opinions are gathered through multiple survey rounds, allowing and encouraging the selected experts to reassess judgments provided in previous iterations (Campos-Climent et al., 2012). So, in each round, the participants are asked to answer questions individually and anonymously, while, after each round, responses are statistically summarized and reported back to them, giving them the chance to revise their answers (Dalkey, 1969; Strand et al., 2017). As a result, every iteration forms the foundation for the next, and the process, which is guided by a skilled moderator, continues until a consensus or a set level of stability in answers is reached (Henning and Jordaan, 2016). As the anonymity of contributors is maintained, and their feedback is monitored throughout the process, the Delphi method prevents groupthink, minimizes the influence of dominant individuals, and reduces (statistical) noise (Dalkey, 1969; von der Gracht, 2012). Not surprisingly,

since its inception by Dalkey and Helmer (1963), it has enjoyed a long tradition as a research and management decision tool (Strand et al., 2017), even though it has hardly been used in co-op studies (see Campos-Climent et al., 2012 for an application).

As the Delphi technique does not make use of a random sample of the target population (Dalkey and Helmer, 1963; Henning and Jordaan, 2016), we applied a purposive sampling method, identifying potential participants through publications, personal contacts, peer recommendations, research conference lists (e.g., ICA global conferences), and affiliations with organizations active in the field of co-ops (e.g., research institutes, non-governmental organizations, consultancy firms). To reflect the variety of geographic contexts in co-op performance research (see also the phase 1 results) and to ascertain that responses represented various possible standpoints (e.g., academic, practical, policy)—in line with the past application of the Delphi method in co-ops (i.e., Campos-Climent et al., 2012)—we collected expert judgments from a diverse panel. So, to assemble the panel and ensure diversity, the final list of experts was stratified according to sectors (e.g., public, private, and not-for-profit), geographic regions, gender, and field of co-op expertise. An e-mail invitation was sent to 42 experts, along with a cover letter containing a short description of the Delphi process, a proposed timeline, and a brief outline of the research objectives. After a reminder e-mail, 17 experts agreed to join the panel. The final pool of panelists included 11 males and 6 females. Although most of them ( $N = 8$ ) came from North America, they were somewhat geographically dispersed: four were Europeans, three were from Latin America, and two from Africa. Seven panelists were academics (e.g., University faculty members), three were senior managers at consulting firms (e.g., agribusiness consultants), three were officials at governmental organizations (e.g., USDA), two were senior managers of not-for-profit organizations (e.g., development organizations), and two were executives of financial institutions (e.g., a credit union). The majority ( $N = 10$ ) of

panelists held a doctoral degree, and all of them had experience in the topic of co-op performance on top of a proven track record of co-op expertise (e.g., significant research output, extensive advisory work).

The actual Delphi study was implemented online, in three rounds. In all iterations, communication was standardized, safeguarding that all panel members received identical information. To reduce over-confidence bias, we also asked experts to report their degree of familiarity with the overarching topic. In round 1, we administered an online survey asking the experts to screen and validate the performance sub-categories confirmed in phase 1 as well as select which ones they would use for measuring co-op performance along three criteria (i.e., ease of data collection, usefulness, and applicability across contexts). In addition, the most common indicators for each sub-category identified in phase 1 were given as examples, while participants could also suggest new metrics or even new sub-categories. In this round, we used the “average percent of majority opinions” (APMO) cut off rate as a consensus measure (von der Gracht, 2012). Based on the latter, responses were summarized and sent back to participants for review in round 2. Through discussion and revision, a consensus was reached by narrowing the survey to three sub-categories and eight indicators that served as the content for the round 3 survey tool. In round 3, four participants decided to drop out, and the remaining 14 were asked to determine the suitability of the eight indicators on a 5-point Likert scale. Levels of agreement among participants were determined using simple measures of central tendency as a consensus criterion (Henning and Jordaan, 2016). In this round, a general consensus was reached and, thus, we decided to stop further deliberations.

### **Phase 3**

Even though the past decade has witnessed a surge of scholarly interest in social entrepreneurship and social enterprises, it was not until the same decade that such research became an influential literature stream (Saebi et al., 2019;



Smith et al., 2013). Hence, before conducting the review on the performance of social enterprises, we could expect that perhaps the sheer number of works devoted to the topic at hand would be smaller than that anticipated for co-ops. Considering that social enterprises were not the focal business form of this article, we restricted ourselves to including peer-reviewed articles (in English) that specifically and explicitly stated social enterprises as their main research topic. So, we consulted the same databases as in phase 1 (with one exception) and searched for articles containing the terms “social enterprise” or “social venture” in the title, abstract, or keywords, along with the terms “performance measurement”, “performance appraisal”, “performance assessment”, “performance evaluation”, and “efficiency”. All documents were double-coded by two of the authors.

## **RESULTS**

### **Phase 1**

Our review resulted in a sample of 139 empirical works (i.e., 121 journal articles, eight conference proceedings, six book chapters, and four reports) and four guides. The vast majority of the empirical studies examined agricultural sectors (i.e., ≈85%), a few more than 15% related to retail banking, and less than 5% investigated other sectors (e.g., industrial, consumer). A third of the studies focused on the United States (USA), a bit more than a third (i.e., 37%) considered European countries, and the rest centered on countries from Asia (e.g., India, Japan, China), Africa (e.g., Ethiopia, Kenya), Latin America (e.g., Brazil, Costa Rica), and Australia or Canada. Interestingly, most research drew samples from the dairy sector (29%), followed by the grain sector (25%), farm supply (25%), and fruit and vegetables (21%). Moreover, almost 20% of studies compared co-ops with IOFs, with the rest focusing solely on co-ops or co-op members. In Table A1 in Appendix A, we present all studies across the sample profile (e.g., country, data period, number of co-ops) and sector(s). Of course, we also present the sub-

categories in which each study was classified next to the metrics employed. In addition, at the bottom of Table A1, we present the metrics proposed by the four guides, the sub-categories these metrics belong to, as well as the countries and sectors to which they are applicable or have been designed for. Table 3.3 below provides a summary overview of all the reviewed work (i.e., both the empirical studies and the guides) across the five sub-categories of the preliminary framework.

Tables 3.3 and A1 reveal that the largest number of empirical studies (i.e., 58%) could be classified as BFA. Unsurprisingly, some studies utilized sales-based metrics (e.g., market shares, sales growth), but the overwhelming majority used financial ratios. The latter could be further divided into two main sets. The first consists of profitability and efficiency ratios illustrating the ability of equity capital to generate returns as well as indicating how effectively assets are utilized (Lerman and Parliament, 1990; McKee, 2008). The second set, which contains leverage, solvency, and liquidity ratios, concentrates on metrics that show the nature of financing equity capital and the ability of the co-op to pay its debts in the long run (i.e., solvency, leverage) or to meet its short-term obligations out of liquid assets (i.e., liquidity) (Boyd et al. 2007; Oustapassidis et al., 1998). Moreover, a few studies (e.g., Ebneeth and Theuvsen, 2005; Heyder et al., 2011; Sergaki and Semos, 2006) employed export-oriented ratios, such as the export intensity ratio (i.e., export to total sales) or the degree of internationalization ratio (i.e., foreign sales to total sales). Finally, many studies devoted to retail banking (e.g., Glass et al., 2010; McKee and Kagan, 2016; McKillop et al., 2002; Yamori et al., 2017) made use of banking-specific ratios like the loan ratio, often on top of examining the traditional ones.

**Table 3.3 - Summary overview of the empirical studies on co-op performance**

<b>Sub-categories</b>	<b>% of studies <sup>a</sup></b>	<b>Most commonly reported metrics</b>
Business financial appraisal (BFA)	58.04	Profitability, debt, liquidity, and efficiency ratios
Business efficiency appraisal (BEA)	30.07	Technical and allocative efficiency
Subjective business appraisal (SBA)	7.69	Key informants' perceptions about overall performance and performance aspects (e.g., member satisfaction)
Objective membership appraisal (OMA)	14.00	Prices paid, side-selling
Subjective membership appraisal (SMA)	9.79	Members' satisfaction with the co-op, members' intention to continue / loyalty

<sup>a</sup> The total % is not equal to 100, as many studies were assigned to more than one sub-category.

The sub-category also recurring quite often in the literature was that of BEA. Notably, almost every third article entailed efficiency assessment metrics. As expected, most contributions favored technical and allocative efficiency, but different efficiency variants were also used (e.g., cost efficiency, scale efficiency, total factor productivity). Furthermore, in the BEA classification, other efficiency-related metrics could be located, such as the marketing margin per unit of capacity (Fulton and King, 1993) or the comparative cost index (Sueyoshi et al., 1998).

In contrast to the BFA and BEA sub-categories, the attention on the remaining three has been somewhat skewed. Except for an early application from Babb and Boynton (1981), it was not until the last decade that SBA, OMA, and SMA metrics were first employed (e.g., Bhuyan, 2007; Kyriakopoulos et al., 2004). In fact, their use only proliferated in the past five years or so, even though some metrics (e.g., satisfaction, perceived performance by key informants) were drawn from mainstream management or marketing studies, the domains of which have exemplified a decades-long tradition in such use (Richard et al., 2009). In total, all three sub-categories accounted for not more than one-fourth of all reviewed studies. In the SBA sub-category, the most common metric adopted related to key informants' (e.g., CEO, Board Chair) perceptions about overall

performance or performance aspects (e.g., how satisfied members are). In the OMA sub-category, the whole range of observable membership characteristics identified in the preliminary framework could be spotted, from user-benefit arrangements (e.g., prices paid, quality of services) or user-control features (e.g., governance procedures) to patronage-related data (e.g., farm profitability). Yet, side-selling appeared to be the most commonly reported measure. The SMA sub-category was dominated by metrics related to overall member satisfaction or satisfaction with membership aspects (e.g., technical assistance, pricing policies, information flow), followed by loyalty measures (e.g., intention to continue membership).

Finally, a handful of papers (e.g., Costa and Carini, 2016; Forker et al., 2014; Mojo et al., 2015) also included metrics not directly belonging to any of the five sub-categories but rather concerning the environmental performance or the impact on internal (e.g., employees) and external stakeholders (e.g., the community), such as the employment size and the community payments ratio (i.e., community expenditure to total assets). On the contrary, the four performance guides (i.e., Co-operatives UK, 2018; Gordon Nembhard and Hammond Ketilson, 2015; Mellor, 2009; World Co-operative Monitor, 2018) propose a considerable amount of metrics relating to social or environmental value, such as indicators for community involvement and development (e.g., amounts granted for donations, scholarships and sponsorships), employee benefits (e.g., salaries, training, hiring practices), and environmental impact measures (e.g., emission and waste reduction). Similarly, all of the guides elaborate on the OMA sub-category, highlighting the social-membership perspective and the importance of capturing member benefits.

## Phase 2

In round 1, respondents were given three weeks to complete the online survey. They were first asked to assess their familiarity with co-op metrics on a 7-point Likert scale, partly as a means of curbing over-confidence bias. It turned out that the panelists rated themselves high on average ( $M = 5.71$ ,  $S.D. = 1.16$ ), albeit at a reasonable rate. They were then asked to answer how “easy it is to collect data for the <<sub-category>>”, how “useful is the <<sub-category>>” and how “applicable is the <<sub-category>> across contexts”.

Respondents could answer whether they agreed or disagreed, generating a potential maximum set of 255 responses. To determine the level of consensus for these responses, we applied the APMO method (see von der Gracht, 2012 for an overview). This is expressed as:

$$\text{APMO} = [(\text{majority agreements} + \text{majority disagreements}) / \text{total opinions expressed}] \times 100\%,$$

According to this method, a statement must achieve a percentage for “agreement” or “disagreement” that is higher than the APMO cut-off rate. The latter is calculated as follows: first, the number of majority agreements and disagreements is computed by expressing the participants’ answers in percentages per statement. A majority is defined as a percentage above 50%. Second, the majority “agreements” and “disagreements” are summed up. Third, these sums are divided by the total number of opinions expressed to calculate the APMO cut-off rate. Any item below the cut-off rate may enter round 2 for re-evaluation.

To calculate the APMO rate for the first round, we used the 15 statements generated by the three questions presented above (five sub-categories multiplied by three questions). So, 113 majority agreements plus 50 majority disagreements (only those >50% are summed) were divided by the total of 252 opinions. This resulted in an APMO rate of 64.68%.

As we can see in Table 3.4, nine statements during the first round reached a percentage of (dis)agreement that was higher than 64.68%, and thus reached a consensus. More specifically, a consensus was fully reached for the SMA sub-category. A consensus was also partly reached for the BFA and OMA sub-categories, in two out of three criteria. That is, the panelists could not clearly agree or disagree if it is easy to collect data for BFA and OMA. In contrast, they did agree that data collection is not easy for BEA. They could not reach a consensus for BEA along the other two criteria, however. Likewise, no consensus was reached for SBA along any of the three criteria.

**Table 3.4 - Analysis of answers to first round statements and consensus**

<b>Statements <sup>a</sup></b>	<b>Agreed</b>	<b>%</b>	<b>Disagreed</b>	<b>%</b>	<b>Undecided</b>	<b>Opinions</b>	<b>Consensus</b>
BFA_e	10	58.82	7	41.18	0	17	No
BEA_e	4	23.53	13	76.47	0	17	Yes
SBA_e	8	50.00	8	50.00	1	16	No
OMA_e	12	70.59	5	29.41	0	17	No
SMA_e	7	41.18	10	58.82	0	17	Yes
BFA_u	13	76.47	4	23.53	0	17	Yes
BEA_u	11	64.71	6	35.29	0	17	Yes
SBA_u	7	43.75	9	56.25	1	16	No
OMA_u	15	88.24	2	11.76	0	17	Yes
SMA_u	13	76.47	4	23.53	0	17	Yes
BFA_a	14	82.35	3	17.65	0	17	Yes
BEA_a	8	47.06	9	52.94	0	17	No
SBA_a	7	43.75	9	56.25	1	16	No
OMA_a	13	76.47	4	23.53	0	17	Yes
SMA_a	12	70.59	5	29.41	0	17	Yes
Total	113	-	50	-	-	252	-

<sup>a</sup> The suffix “\_e” stands for “ease of data collection” (*question 1*), the suffix “\_u” stands for “usefulness” (*question 2*), and the suffix “\_a” stands for “applicability across contexts” (*question 3*).

In round 2, the panelists reached an agreement regarding the contested cases of the first round. That is, after being sent the summarized responses and through discussion, they decided that the SBA and BEA sub-categories should be eliminated (see Table 3.5). They did retain the BFA and OMA ones, acknowledging that data collection is not easy but definitely easier than for the eliminated sub-categories. Furthermore, in this round, the panelists agreed to

carry on with the most common indicators identified for BFA, OMA, and SMA (see below). Finally, no new sub-category was put forward in any of the first two rounds, while the few additional metrics suggested by experts were already identified in phase 1.

**Table 3.5 - Round 2 decisions**

<b>Sub-categories</b>	<b>Keep the sub-category <sup>a</sup></b>	<b>Drop the sub-category <sup>b</sup></b>
BFA	15	2
BEA	5	12
SBA	5	12
OMA	12	5
SMA	13	4

<sup>a</sup> Number of experts deciding that the <<sub-category>> should be kept; <sup>b</sup> Number of experts deciding that the <<sub-category>> should be dropped.

In round 3, three experts decided not to continue. The rest were asked to rate the eight metrics approved from the previous round. To determine the consensus level, we used the mean as an orientation criterion and the standard deviation (SD) as a level criterion. SD values below 1 were deemed as “high” (Henning and Jordaan, 2016).

**Table 3.6 - Summary of results for the Delphi third round**

<b>Metric</b>	<b>Mean</b>	<b>SD</b>	<b>Median</b>	<b>Consensus Level</b>
Profitability ratios	3.93	0.99	4.00	High
Debt ratios <sup>a</sup>	4.21	0.80	4.50	High
Liquidity ratios	4.21	0.89	4.00	High
Efficiency ratios	4.00	0.88	4.00	High
Prices paid	3.86	1.17	4.00	Fair
Side-selling	4.64	0.63	5.00	High
Member satisfaction	4.64	0.50	5.00	High
Intention to continue / Loyalty	3.50	1.23	4.00	Fair

<sup>a</sup> In debt ratios, both leverage and solvency ratios were included.

As we can see in Table 3.6, but for two metrics, all other reached a high level of consensus. In fact, the two metrics that failed to do so appeared to have the lowest means too. Of course, one of the BFA metrics (i.e., profitability ratios) only marginally fulfilled the consensus level criterion. All in all, shortly after

gathering and analyzing round 3 responses, we reckoned that phase 2 objectives were met and, thus, decided not to proceed to a fourth round.

### **Phase 3**

As expected, our review of the literature on the performance of social enterprises confirmed that approaches to measuring performance within social enterprises remain in the early stages (Luke, 2016). Not surprisingly, the sheer number of articles measuring or merely conceptualizing performance in social enterprises compared to the volume we generated in our review of the empirical work on co-ops was somewhat small (see Table A2 in Appendix A). Moreover, we found no study focused on the agricultural sector. Of course, as social enterprises use a business logic to improve the situation of population segments that are disadvantaged or even excluded (Saebi et al., 2019), it should not be surprising that almost all reviewed studies were devoted to socially-oriented sectors, such as those of work integration and social care. Interestingly, quite a few studies (e.g., Arena et al., 2015; Bagnoli and Megali, 2011; Bull, 2007; Crucke and Decramer, 2016; Somers, 2005) included co-ops in their samples and treated them as social enterprises. Perhaps, as numerous social co-ops providing socially-oriented services (e.g., work integration, healthcare) can be found in many countries (Costa and Carini, 2016), such identification with social enterprises can be anticipated.

As far as metrics are concerned, early work concentrated on adaptations of Kaplan and Norton's (1996) balanced scorecard, deploying strategic objectives into operational ones in order to determine how social value is created (Bengo et al., 2016). A handful of studies appealed on financial data, in line with BFA metrics, while others used or developed subjective measures (e.g., key informant's view on economic and social performance), which in turn could be directly compared to SBA metrics. Not unexpectedly, all studies used some indicators designed to capture social value (e.g., social performance), even



though almost all of the studies recognized the challenge of assessing it as opposed to financial performance. Still, two models that concentrate on social value but also blend it with economic inputs and outputs clearly prevailed.

The first one is the Social Return on Investment (SROI) and is part of the synthetic type of metrics, which aim to provide a global performance assessment of a social organization (Bengo et al., 2016). The SROI model was developed by the Roberts Enterprise Development Fund and is based upon the principles of cost-benefit analysis (Arena et al., 2015). By analogy with its business counterpart (i.e., the return on investment), it measures the value of social benefits created by an organization in relation to the cost of achieving those benefits (Miller and Hall, 2013). In other words, it is a measure that monetizes outcomes, comparing the (monetized) social costs of a program with the (monetized) social benefits of achieving an outcome (Cordes, 2017). As a synthetic indicator, the SROI model seeks to merge financial and social value with a view to formulating a single parameter representing the social enterprise's performance (Arogyaswamy, 2017). Similarly to the second dominant model (i.e., the "logic model") below, it puts those affected (i.e., the beneficiaries) at the heart of the measurement process (Nicholls, 2017).

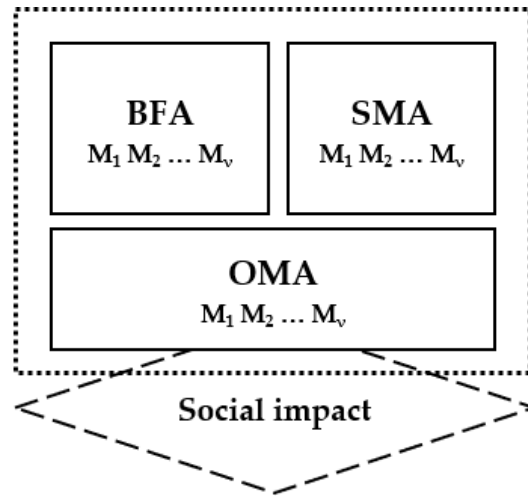
The second model is based on the so-called "logic model" of assessment (or impact value chain model), a process-based model centering on the process of 'production' of a social service/product (Bengo et al., 2016). The "logic model" was originally developed for USAID in the late 1960s and has its roots in the evaluation of programs and projects (Ebrahim and Rangan, 2014). It articulates indicators and metrics into inputs, outputs, outcomes, and impacts (Arogyaswamy, 2017). Organizational inputs (e.g., equipment, funds) are used to support activities or processes for the production of goods and services that in turn result in the delivery of outputs to a target beneficiary population (e.g., number of people benefitting) (Ebrahim et al., 2014). These short-term outputs

are expected to lead to improved outcomes in the lives of beneficiaries typically measured in terms of medium- and long-term benefits (e.g., increased incomes, social integration) (Ebrahim and Rangan, 2014). The component of impact usually refers to the consequences for the wider community, acknowledging the secondary effects that may accompany the outcomes (e.g., community benefit due to social integration) (Bagnoli and Megali, 2011). In short, the “logic model” and its variants used by the studies at hand are centered on the beneficiaries, but implications for the wider community are often integrated, even though the causal link between outcomes and impact might not be apparent or go beyond the control of the social enterprise in question (Crucke and Decramer, 2016).

### **The ‘Currency Matrix’**

In harnessing the “currency matrix” for the performance measurement of co-ops, we “amalgamate” the findings from the three phases in a concrete dashboard, even though we do not narrow down the scope to the exact metrics singled out in the Delphi study. In phase 1, it became clear that, despite the dominance of the business sub-categories (i.e., BFA and BEA), the social-membership perspective, represented by OMA and SMA, has entered the lexicon of empirical research in co-op performance and is gaining increasing attention. Yet, any performance assessment endeavor cannot afford to disregard the business perspective, particularly the BFA metrics that apply to co-op and non-co-op contexts alike. Moreover, phase 1 findings suggested that hardly any efforts are made to empirically assess co-op impact beyond co-op boundaries (e.g., benefits to the community). In phase 2, co-op experts helped to “hammer” the assessment components and imprint them into a three sub-category dashboard. As we can see in Figure 1, the BFA element reflects the business aspects, and the SMA constituent conveys the social-membership viewpoint. Together, they do justice to the dual objective of the unique co-op organizational form. However, the OMA addition solidifies both components, exemplifying in

observable terms what members receive but also what they partly contribute to keeping their co-op enterprise in business.



**Figure 3.1** - The “currency matrix”

Consequently, even though integrating measures from BFA and SMA would probably suffice to obtain a firm view on co-op performance, complementing them with OMA metrics helps paint a complete picture. Additionally, users may employ the metrics that comprise each constituent ( $M_1$ ,  $M_2 \dots M_v$  in Figure 3.1) depending on their context characteristics. Interestingly, in phase 3, it became evident that the social aspect takes center stage in the scholarly work on the performance of social enterprises. Emphasis is placed on the beneficiaries, but societal implications beyond the recipients’ frontiers are accounted for or at least considered. In phase 1, only the performance guides concentrate on social aspects. Hence, phase 3 findings and the limited attention of phase 1 results suggest that the ground for the social perspective—in membership terms and beyond—is undoubtedly fertile for a genuinely socially-embedded business form like co-ops, particularly when attempting to unveil their actual socio-economic impact.

Finally, the three sub-categories are glued to each other. Even though they are based on distinct metrics and are ostensibly independent, they are essentially interdependent. Yet, they should not be treated as an all-inclusive index, and

they cannot probably result in a single supreme indicator. Preferably, together they epitomize a “form for a medium of knowledge exchange” (the “currency matrix”). This medium enables “users” (researchers or practitioners) to pick the “exact units” (metrics) that generate “global values” (scores) that ultimately empower them to “trade” (exchange) their findings in the knowledge “marketplace”. If the “currency matrix” is duly utilized, findings on co-op performance may become easily “interchangeable” rather than risk ending up isolated. Moreover, as the three sub-categories are fundamentally symbiotic with the social impact aspect, adding social value measurement elements opens up the exchange of ideas or results past the co-op “universe”. As a result, we anticipate that studies employing metrics from all three components as well as assessing social impact will be in a better position to capture co-op performance comprehensively and at the same time produce a fruitful dialogue.

## **GENERAL DISCUSSION**

### **Discussion and Implications**

In this paper, we aimed at delivering a performance dashboard for co-ops that could be comprehensive and simultaneously consistent with the dual nature of the distinctive co-op organizational form. In so doing, we began with an analysis of a preliminary framework, in which we detailed five sub-categories and documented their advantages and shortcomings. Then, in phase 1 we reviewed an impressive body of empirical work and validated the preliminary framework. In phase 2, we integrated the input from experts in the field, and through multiple iterations transformed the framework into a concrete three-sub-category dashboard. In phase 3, we explored comparable work for a business form (i.e., social enterprises) that also blends business with social components and faces similar business–social challenges. This inquiry encouraged us to fortify the social perspective of the dashboard.

Moreover, based on what has been most commonly used in the literature as well as on what the experts singled out, we proffered a manageable bundle of metrics for each of the three sub-categories, even though neither did we aim to prepare a global performance measure nor to direct future work into particular metrics. Instead, our dashboard covers the assessment constituents that can be considered representative of the co-op organizational form and fundamental for measurement endeavors. Hence, it may serve as a common benchmark (a “currency matrix”) for future empirical studies or at least trigger more inquiries that look into both the business and social perspectives.

Our finding that studies have only recently paid attention to the social perspective coupled with the absence of impact assessment beyond the co-op boundaries, in sharp contrast to research on social enterprises, warrants further investigation. It is already surprising that co-ops have been unable to disseminate their competence in creating both commercial and social value, particularly in light of the ILO estimation that the livelihoods of nearly half the world’s population are secured by co-ops (ILO, 2014) or despite the annual reporting by the World Co-operative Monitor (World Co-operative Monitor, 2017). Therefore, we suggest that future research accommodates the assessment of far-reaching social impact too. Perhaps, when scholars and practitioners consider what to assess or what to report, they should embrace the quote from Pericles: “What you leave behind is not what is engraved in stone monuments, but what is woven into the lives of others”. In other words, co-ops will be in a better position to demonstrate they are an effective tool for the sustainable social development if co-op scholars and managers engage in systematic evaluation of social value too (Borgaza et al., 2011).

## Limitations and Future Research Suggestions

A central strength but also limitation of this study is the focus on the agricultural domain. At the outset of the paper, we explained that we chose to concentrate on this domain, given the robust market presence agricultural co-ops exhibit worldwide, the policy support they enjoy in several countries, and the marked attention they have attracted in the specialized academic literature. In reality, we did consider all sectors and reviewed related work, but, not unexpectedly, we found that almost 85% of the 139 empirical studies at hand were entirely or partly devoted to agricultural co-ops. We acknowledge, however, that future studies may not be in a position to pick certain metrics out of those proffered (e.g., side-selling). A solution for researchers would be to favor the sub-categories of the proposed dashboard, albeit select or adapt those metrics that suit their contexts. For example, in phase 1 we showed that some studies which examined retail banking co-ops employed banking-specific financial ratios. So, we could suggest that, regardless of the subtype (e.g., consumer, purchasing, financial, housing), researchers could utilize the “matrix” to assess performance, as long as they make the right metric selections and the right adaptations. We expect that the OMA sub-category would probably call for particular attention (e.g., the metric “prices paid” would need careful interpretation), whereas the BFA and SMA sub-categories would require less effort. For example, measuring “member satisfaction” across subtypes or calculating financial ratios would be a relatively uncomplicated undertaking.

Similarly, as Franken and Cook (2015) have pointed out, the correspondence between different metrics might be contingent on the type of the co-op (e.g., multipurpose vs. supply), which in turn might be bound to the sector(s) (e.g., dairy vs. grain) that the sample in question is associated with. More research is definitely needed to explore a better alignment between the different contexts and the various metrics, also in line with the calls from

mainstream management research (Beer and Micheli, 2018; Richard et al., 2009). Moreover, following sustainability studies' convention to treat stakeholders as an integral part of the measurement process (Mura et al., 2018), future research could more systematically involve internal and external stakeholders in the co-op performance assessment process and, thereby, develop a taxonomy of (apt) metrics by stakeholder type. Of course, as the core stakeholders (i.e., the members) routinely exhibit substantial heterogeneity in their preferences (Kalogeras et al., 2009), it is rather perplexing to satisfy their interests, let alone to balance the diverse concerns of the varied stakeholders. Nonetheless, accounting for the inherent heterogeneity in stakeholder preferences when measuring co-op performance, will permit a richer understanding of co-ops' socio-economic impact on top of expediting a dynamic configuration between research contexts and metrics.

Furthermore, it could be promising to examine our suggested dashboard and different metrics through the prism of the co-op life-cycle framework (Cook, 1995; 2018). The latter encapsulates the business and social perspectives, among others, and assesses co-op "health" over five sequenced phases through a bundle of metrics (e.g., prices paid, services, feeling of community) that tie finely with our dashboard. Perhaps deploying the dashboard constituents and associated metrics along the five phases would help researchers to interpret performance outcomes more accurately and understand the interconnections between the constituents for each phase soundly. In practice, coalescing our dashboard with the life-cycle framework could probably assist co-op leaders in making informed decisions, particularly in the final phase, where they have to make a "choice" that determines whether their co-op can go through succeeding life cycles.

In conclusion, while we believe we have succeeded in providing academics and practitioners with a "currency matrix" of co-op performance measurement to rely on, we see an opportunity for scholars to advance the

performance debate and possibly provide a concluding touch, as long as they do not disregard the (dual) nature and the (social) roots of the idiosyncratic co-op organizational form. We hope we have made a small step toward convergence in understanding co-op performance assessment and in facilitating future scientific comparisons. Co-ops are well-placed to contribute to sustainable development, although, to render their contribution visible universally, they first need to be well-equipped to quantify their impact consistently.





## CHAPTER 4a

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# Developing an instrument to detect member-customer ostracism in co- operatives

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*This chapter is partly based on:*

Benos, T., Kalogeras, N., de Ruyter, K., and Wetzels, M. (2018). Diagnosing member-customer ostracism in co-operatives and counterpoising its relationship-poisoning effects. *European Journal of Marketing*, 52(9/10), 1778-1801.

## INTRODUCTION

As we have showcased in Chapters 1 and 3, co-operatives (co-ops) occupy a strong position globally, providing both economic and social returns. All over the world, co-ops serve billions of customers in many business sectors (e.g., banking, agriculture, retailing), have over a billion members and employ more than 100 million people (CICOPA, 2017; Ernst & Young, 2012). Just the world's largest 300 co-ops yield combined revenues of US\$2.16 trillion (World Co-operative Monitor, 2017). In the US and retail banking alone, credit unions total 100 million members and regularly outperform rivals (e.g., traditional banks) on customer satisfaction (McKinsey & Company, 2012). Unlike other organizational forms (e.g., IOFs), the co-op model is people-centered, grounded on a membership structure, organized to meet member needs (Birchall, 2013; Puusa et al., 2013). Members are co-op's core customers, but also those who own, finance and control it (Birchall, 2011). As such, they maintain a close relationship with the co-op, enjoying both economic benefits (e.g., determining the services/products offered) and social welfare (e.g., networking, community support) (Foreman and Whetten, 2002; Freathy and Hare, 2004). Inevitably, co-op survival, let alone co-op success, rest on relational assets like member-customer loyalty (Mazzarol et al., 2014).

Despite their pervasiveness and merits, co-ops are faced with a member-related threat eroding their distinctive character, however. That is, member involvement and commitment are increasingly challenged by growing member disconnection, and declining stocks of influence and interaction (Harris, 2014; Nilsson et al., 2012). A recent US study suggests that members' dissociation is rising (Kenkel and Fitzwater, 2012). The UK's traditionally largest co-op, "The Co-operative Group", has recently experienced "an annus horribilis for the mutual model of business ownership", partly owing to members' neglect (Gray, 2014) and a crisis in membership commitment (Davis, 2016). Clearly, co-ops need

to beware of the widening “membership distance”, else they jeopardize their core advantage and distinguishing feature from other business models, namely their relational proximity to member-customers (Ernst & Young, 2012). Therefore, understanding how co-op members perceive being left out, disconnected, or unattended is crucial in helping co-op leadership to prevent attrition of co-ops’ relational competitive advantage.

To address this issue, we turn to research on ostracism. Ostracism means being overlooked, ignored or excluded by other individuals or groups (Williams, 2001). It is a ubiquitous phenomenon, occurring across a broad range of social contexts (e.g., playgrounds, hallways, workplaces; cf. Nezlek et al., 2015). Being ostracized in social groups is particularly aversive, unleashing a variety of physiological, cognitive, affective, and behavioral responses (Lustenberger and Jagacinski, 2010; Williams and Nida, 2011). Notably, even minimal forms of ostracism elicit significant perceptions of social disconnection (Gerber and Wheeler, 2014; Jones et al., 2011). Connection and inclusion are central facets of co-op philosophy (Mellor, 2009; Novkovic, 2008), thus, ostracism can strike at the heart of co-op principles, poisoning intra-group relationships, and distancing members from their co-op. While extant literature has repeatedly emphasized the importance of membership in co-ops (Byrne et al., 2015; Fulton, 1999; Kalogeras et al., 2009), and has long documented the co-op model advantages and shortcomings (Nilsson, 2001; Novkovic, 2008), it has paid limited attention to the social components of membership or the view of members on such issues (Bhuyan, 2007). As a result, little is known about core co-op threats from a member-customer standpoint. This knowledge gap persists because co-ops have attracted little interest in business disciplines, particularly in the marketing literature, despite their unique value proposition marked by member-customer centrality and relational proximity.

The objectives of this study are to provide a conceptual analysis of the core co-op threat of member-customer ostracism and, thereby, develop a diagnostic tool. Accordingly, we first conceptualize and explore co-op ostracism. Then, in the absence of a validated self-report instrument and to better capture perceptions of ostracism experiences in the co-op context, we develop a measurement instrument and assess its psychometric properties. In so doing, we followed a seven-step process. In Step 1, we generated an initial item pool. In the following two Steps, we generated more items, but we also removed some. Moreover, we confronted our conceptualization with members' (Step 2) and experts' (Step 3) notions respectively. Subsequently, based on a suitability task (Step 4) and an item-sort task (Step 5), we advanced and finalized item selection. In Step 6, we collected data from three different industries (i.e., retail banking, agribusiness, and consumer co-op) to provide evidence regarding the factor structure, scale reliability, and the overall construct validity. Finally, in Step 7, we sought and found distinct support for the scale's external reliability (i.e., test-retest). All in all, this thorough multi-step process enabled us to accomplish the study's goals, as we traced ostracism's poisonous presence in co-ops and simultaneously developed a reliable and valid diagnostic tool. Consequently, this study contributes to the co-op literature by providing a platform for future investigations into how a core co-op threat can be diagnosed and evaluated. Likewise, co-op decision-makers might use the article's diagnostic tool to detect ostracism and combat it.

The remainder of this Chapter is structured as follows. We first review the extant literature on ostracism and define co-op ostracism. Next, we elaborate on how we explored co-op ostracism and developed a scale to measure it. In the final section of the Chapter, we note some of the study's theoretical and managerial implications.

## THEORETICAL BACKGROUND

### **Co-op Membership, Ostracism Features, and Ostracism Robustness**

“Membership” is the central element of co-op enterprises that are jointly owned and democratically controlled by persons who choose to join them in order to meet their needs directly (ICA, 2013). Co-ops are predominantly concerned with increasing, holding and benefiting from a loyal member-customer base (Kalogeras et al., 2009). This fills both a central business aim - tapping member contribution and commitment - and the social purposes of providing members with a sense of inclusion, participation, and community, as well as the opportunity to co-decide about several issues (e.g., what services are offered) (Foreman and Whetten, 2002; Freathy and Hare, 2004; Mazzarol et al., 2014; Mellor, 2009).

Undermining or simply disregarding these co-op membership aspects is likely to form a “distance” between the members and the co-op, and poison their relationship. Drawing on ostracism research and adopting an individual member perspective seem best to shed light on such social exchange-based and exclusionary membership hazards. Social ostracism is defined as ignoring and excluding one or more individuals (Williams, 2001). Although some may think it is an extreme or infrequent event, people experience about one ostracism episode every day (Nezlek et al., 2015). Individuals are ostracized in interpersonal friendships and relationships (Poulsen and Carmon, 2015), by close others or strangers (Nezlek et al., 2012), by in-group or out-group members (Gómez et al., 2011), online (Wolf et al., 2015), in workplaces (Scott et al., 2013; Wu et al., 2011), and in marketplaces (Mattila et al., 2013; Mead et al., 2011).

Ostracism has distinct features which set it apart from physical or verbal altercations (e.g., bullying, harassment) and point to its unique nature and effects (Williams and Nida, 2011). First, ostracism is defined by acts of omission (Robinson et al., 2013). That is, it is characterized by the absence of positive

attention and wanted behavior rather than the presence of negative attention or unwanted behavior (O'Reilly et al., 2014; Rajchert and Winiewski, 2016). This is why it reduces social interaction, in contrast to other social mistreatment behaviors (e.g., assault), which are interactional by nature (Cullen et al., 2012). Second, ostracism's underlying motives vary, making it more ambiguous than other forms of social disdain (Lustenberger and Jagacinski, 2010; Zadro et al., 2005). For example, individuals may ostracize a target to defend against being punished themselves (i.e., defensive ostracism) or because they might dislike something the target did (i.e., punitive ostracism; Poulsen and Carmon, 2015). Ostracism need not be intentional, however. People may simply overlook others (i.e., oblivious ostracism; Nezlek et al., 2012). A precise cause cannot always be determined; thus, the motives ostracism targets infer might differ and trigger further ambiguity (Robinson et al., 2013; Tang and Richardson, 2013). As ostracism perception is self-based and people have a tendency to over-detect it (Williams, 2009), it should not be surprising that its most aversive aspect is probably the enigma of whether one is purposefully ostracized and, if so, why.

Ostracism is not only general and unique but also remarkably impactful. Even seemingly innocuous forms of ostracism like information exclusion have psychological and behavioral consequences (Jones et al., 2011). In the last 15 years, numerous studies (e.g., Costantini and Ferri, 2013; Critcher and Zayas, 2014; Ferris et al., 2008; Hitlan et al., 2006; Wesselmann et al., 2015; Williams, 2001; Zadro et al., 2005) have consistently demonstrated that ostracism thwarts fundamental social needs (i.e., belonging, self-esteem, control, and meaningful existence) and entails devastating personal, social, and clinical effects (Poon et al., 2013; Wolf et al., 2015). The strength and robustness of ostracism have strikingly been manifested in organizational and consumer behavior. In organizational settings, it has repeatedly been associated with negative psychological and behavioral outcomes, such as psychological distress (e.g. job tension; Wu et al., 2012), lower work engagement (Leunga et al., 2011), less in-role behavior (e.g.,

lower job performance; Wu et al., 2011), less extra-role behavior (e.g. lowered organizational citizenship behaviors; Hitlan et al., 2006), higher counterproductive work actions (e.g., hostility towards colleagues; Zhao et al., 2013), higher employee turnover (O'Reilly et al., 2014), and a negative spillover effect on family satisfaction (Liu et al., 2013). Likewise, in consumer settings, ostracism spawns undesirable responses. It entices people to spend and consume strategically (e.g., buying symbolic products; Mead et al., 2011), increases unhealthy food consumption (Salvy et al., 2011), and exacerbates financial risk-taking (Duclos et al., 2013). A mere “automatic reply e-mail” to customer complaints (i.e., a form of cyber-ostracism) has been found enough to inflict hostile customer reactions (Mattila et al., 2013). In summary, both workplace and marketplace ostracism undermine personal well-being, unleashing diverse adverse responses.

### **Ostracism in Co-ops and the Definition of Co-op Ostracism**

Being left out or even merely unattended can be expected to be profoundly distressing to people who voluntarily join a co-op group and anticipate finding themselves cherished. Even in simple membership associations members crave for recognition (Vincent and Webster, 2013). Co-op membership implies a special relationship between the co-op and the people whose needs it is established to serve. The inherent relational advantage creates high expectations (Byrne et al., 2015; Mazzarol et al., 2014). Ostracism probably disconfirms such expectations and sets the stage for negative reactions.

It is not unusual that co-op members experience the extreme or complete form of ostracism (i.e., forced exit), rooted in its ancient origins<sup>11</sup>, especially when they systematically free ride on collective benefits (Nilsson, 2001). Nevertheless, as we have detailed above, the phenomenon of ostracism is typically represented

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<sup>11</sup> Ostracism occurred long before it was named (ostrakismos), when ancient Athenians cast their votes on shards of clay, ostraca, to determine whether a citizen would have to be expelled from the city for ten years (Costantini and Ferri, 2013).



by less dramatic behaviors (e.g., merely overlooking someone) or partial forms (e.g., being out-of-the-loop). We attest to this dominant approach of partial ostracism and, considering that the genetic code of co-ops is marked by the combination of market and social components, we also integrated elements which reflect the distinctive features of co-ops' value proposition (e.g., satisfying both individual and social needs, giving voice, information access).

As the primary users and sole owners, but also as an integral part of the membership camaraderie, co-op member-customers anticipate individual attention and interest, response to their requests, access to information, and voice, among others. So, we view such social-market elements as the core reflective indicators of ostracism in co-ops and given their interrelatedness we expect them to form a unidimensional construct. Based on the defining characteristic of omission explained above (O'Reilly et al., 2014), associated with the inherent ambiguity ostracism encompasses (Robinson et al., 2013), we assume that their absence or low levels might infer perceptions of neglecting, ostracizing conduct. In brief, we define co-op ostracism as *the perception of a member-customer that he or she is being subjected to neglecting behaviors (e.g., lack of attention, response, interaction, voice, concern for interests and treatment) by others within the co-op*.

We anticipate that ostracism might be perpetrated by a variety of sources within the co-op, such as by other members, Board members, employees or managers. In line with past research (e.g., most workplace ostracism studies), we do not distinguish between sources, however. Besides, a one-person exclusion is adequate to elicit negative outcomes against all others (Gaertner et al., 2008), even against inclusive ones (Chernyak and Zayas, 2010; Critcher and Zayas, 2014).

### **The Need for a Domain-specific Scale to Measure Co-op Ostracism**

Studies investigating social ostracism have largely evolved from research on social and organizational psychology. On the one hand, social psychologists

have mainly focused on understanding the short-term, phenomenological experience of being ostracized, which is customarily induced under controlled, experimental conditions (e.g., Chernyak and Zayas, 2010; Lelieveld et al., 2012; Lustenberger and Jagacinski, 2010; Salvy et al., 2011; Schaafsma and Williams, 2012). Such methods may have limited external validity given that they often disregard the context(s) in which ostracism is manifested and sustained. Besides, our conceptualization entails domain specificity. Specific domains represent adaptations from more general ones intending to advancing the understanding of the focal construct and providing additional problem-solving ability (Kidwell et al., 2008).

On the other hand, even though the workplace ostracism scale (WOS; Ferris et al., 2008) is a well-validated tool that has been used in a host of organizational studies (e.g., Cullen et al., 2012; Leunga et al., 2011; Liu et al., 2013; Scott et al., 2013; Wu et al., 2012; Zhao et al., 2013), it measures ostracism perceptions in a particular organizational domain, the workplace. Hence, we could not utilize WOS and, instead, chose to develop a co-op domain-specific scale, consistent with our definition.

## METHODOLOGY AND RESULTS

The development and assessment of the scale resulted from a multiple-step and iterative process in seven steps. In Steps 1, 2, and 3 we followed established procedures (Netemeyer et al., 2003; Nunnally and Bernstein 1994; e.g., extensive literature review, in-depth interviews, expert screening) to generate and purify our initial item pool. At the same time, we confronted our conceptualization with members' (Step 2) and experts' (Step 3) notions respectively. Next, we used data from Steps 4 and 5 to further select items, based on a suitability task with 208 postgraduate business students (Step 4) and an item-sort task with 31 academics (Step 5). In Step 6, we collected data from three different industries (i.e., retail banking, agribusiness, and consumer co-op) to provide evidence regarding the factor structure, scale reliability, and the overall construct validity. In Step 7, we found unequivocal support for the scale's external reliability (i.e., test-retest). The resulting scale contained nine items (see Table 4a.2). Figure 4a.1 provides an overview of the scale development process.

<p><b>Step 1</b> Item generation and selection</p>	<p><b>Literature review</b> Co-op, ostracism, social exclusion, social capital and relationship marketing literature, related scales like “loneliness”, “social undermining”, and “workplace ostracism” Result: 26 items from the review and 13 items from related scales Total number of items: 39</p>
<p><b>Step 2</b> Item screening, generation, and selection; exploration of ostracism</p>	<p><b>Qualitative Interviews</b> with 26 co-op members and leaders Results: 12 items were dropped and 7 were generated; content validity judgement; ostracism experiences documented Total number of items: 34</p>
<p><b>Step 3</b> Item screening and reduction</p>	<p><b>Expert screening</b> with 12 academics Results: 10 items were dropped; face and content validity were established Total number of items: 24</p>
<p><b>Step 4</b> Further item reduction</p>	<p><b>Pilot testing</b> with 208 business students familiar with the co-op context Result: 8 items were dropped Total number of items: 16</p>
<p><b>Step 5</b> Substantive validity and final item selection</p>	<p><b>Pilot testing</b> with 31 academics Results: 7 items were dropped; substantive validity was established; face and content validity were further established Final number of items: 9</p>
<p><b>Step 6</b> Assessment of scale properties</p>	<p><b>Testing</b> with 627 co-op members from 3 domains Result: Strong evidence of convergent, discriminant and nomological validity was found</p>
<p><b>Step 7</b> External reliability testing</p>	<p><b>Testing</b> with 132 co-op members from 7 domains Result: Support for the general stability of the scale was found</p>

**Figure 4a.1** - Overview of the scale development process

## **Step 1: Item Generation and Initial Selection**

### ***Methodology***

The objective of Step 1 was to generate specific items for the proposed definition of co-op ostracism and to select those that were content valid, clear and concise. We took care in balancing the exhaustiveness of the item listings with the need to generate a set with limited redundancy that had the potential of transforming into an actionable, short form scale. Following accepted procedures (e.g., Netemeyer et al., 2003; Nunnally and Bernstein, 1994), we based item generation on an extensive literature review focused on concepts related to ostracism and co-ops. In fact, co-op, ostracism, social exclusion, social capital and relationship marketing literature were helpful in identifying an initial set. We also located items from existing scales of related constructs, such as “workplace ostracism”, “loneliness”, and “social undermining”.

### ***Results***

Using our definition of co-op ostracism as a starting point, we generated items meeting two criteria. First, we constructed or selected those items that were consistent with the definition, particularly with the features identified in our conceptualization (e.g., attention, response, interaction, voice, concern for interests). Secondly, we favored items that were readily comprehensible, behavioral in nature and did not confound affective responses or other consequences with ostracism behaviors. From the literature review, we generated 26 items. We supplemented them with another 13 items taken from the pre-existing related scales. Based on both inputs, an initial pool of 39 items was created.

## **Step 2: Exploring Ostracism in Co-ops, Item Screening, and Further Item Generation**

### ***Methodology***

In Step 2, we explored the ideas and opinions that co-op members held about several co-op as well as ostracism-related issues. In 26 in-depth interviews, co-op members were asked a series of questions to provoke thought about the co-op value proposition, the relational advantage of co-ops, ethical issues, ostracism experiences and membership outcomes (e.g., loyalty, withdrawal, WOM), among others. We also asked participants how relevant and essential the aspects touched upon were to them.

### ***Results***

This round of interviews confirmed ostracism as a distressing and morally unworthy phenomenon. It also yielded another seven items. To attain a broad coverage of item content, as well as to facilitate the use of language common to target informants, participants were then administered the items already generated from the previous Step. As a consequence of this, it was found that 12 of the items produced were inappropriate and, were therefore removed. This evaluation also helped to assess whether the actual items were succinct and intelligible. Comprehension issues were addressed, so the wording of a couple of items was adapted. Items were then scaled using a Likert format ranging from 1 = “not at all” to 7 = “to a large extent”.

## **Step 3: Expert Screening**

### ***Methodology***

The modified set of 34 items was then critically evaluated by 12 academic experts in terms of face validity, content validity, and overall appropriateness. The use of experts as judges has been commonly used in customer research (e.g., Devlin et al., 2014; Kidwell et al., 2008; Shams et al., 2015). To assist, we gave each

judge a description of the phenomenon, a summary of our research purpose and the definition used in the initial Steps. We also presented them with a description of rival constructs. Items that 10 or more of the 12 judges classified as representative of co-op ostracism were kept for further scale development.

### ***Results***

From the 34 items originally assessed, 24 items were retained. The ten items were eliminated due to having essentially identical meanings with other items, strong conceptual overlap with other constructs (e.g., social undermining), reference to a different domain of ostracism (e.g., workplace), or simply due to being generic or inconsistent with our conceptualization. Eliminating less than ideal items was consistent with the goal of creating a final scale with a manageable set of 8 to 15 items. Besides, short scales with non-redundant content have been shown to be equally valid to those containing higher numbers of items (Brocato et al., 2012; Richins, 2004).

## **Step 4: Further Item Reduction**

### ***Methodology***

We designed Step 4 to select items generated in the first three Steps. As recommended by Netemeyer et al. (2003), a quantitative pilot study was conducted to reduce the number of items by deleting or altering those that did not meet psychometric criteria. We administered the 24 items from Step 3 to a sample of postgraduate business students at a University in Western Europe who earned course credit for participating ( $N = 208$ ). We asked them to indicate the extent to which these items described co-op ostracism experiences to a good extent (1 = “not at all descriptive,” and 7 = “very descriptive”). We provided them with the definition as well as with some examples. All of the students were familiar with the co-op context, as they had carried out a co-op related project for their course.

## *Results*

Sixteen items received a mean value above average ( $M = 5.08$ ,  $SD = 0.55$ ). We subsequently conducted a principal factor analysis using oblique rotation (Brocato et al., 2012; Kidwell et al., 2008; Netemeyer et al., 2003; Shams et al., 2015). This analysis revealed a four-factor solution (variance explained = 60%). The sixteen items that had a mean score above average all loaded significantly on the first factor ( $> 0.65$ ) and had weak cross-loadings on the other three factors ( $< 0.2$ ). Moreover, Cronbach's alpha for this set of items reached a value of 0.96, comfortably above the "excellence" level suggested by Nunnally and Bernstein (1994) when gauging scale reliability (Devlin et al., 2014). Strikingly, the eight items which had a mean score below average all had rather low item-to-total correlations ( $< 0.20$ ) as well as low factor loadings ( $< 0.08$ ) on the first factor.

To determine whether the one-factor solution could provide a more distinct structure and to be consistent with our unidimensional conceptualization, we removed these eight items which had a mean score lower than average and only loaded significantly on the other three, hard to interpret factors. We then conducted a principal factor analysis that restricted the number of factors to one (variance explained = 60%) while setting a strict loading criterion ( $> 0.7$ ). All 16 items fulfilled the criterion. We decided to carry on with these 16 items and drop the rest. Before doing so, however, we conferred with some experts of the previous Step to make sure that deleting them did not reduce content and face validity.

## **Step 5: Substantive Validity and Final Selection**

### *Methodology*

In Step 5, we sought to further select items retained from Step 4 and also assess their substantive validity with an item-sort task (see Anderson and Gerbing, 1991 for an overview). Substantive validity is a type of content validity defined as the extent to which the items of a scale are judged to reflect or to be



theoretically linked to the construct of interest (Hinkin and Tracey, 1999). When constructing a new scale, researchers often create an over-representative item list (Hinkin, 1998; Howard and Melloy, 2016). An item-sort task is a customary method to reduce such lists, as it furnishes a guide for removing items that are not conceptually consistent with the construct under investigation while predicting which items will perform best in a confirmatory factor analysis (Anderson and Gerbing, 1991; Hinkin and Tracey, 1999). On top of testing for an item's substantive validity, an item-sort task also gives respondents the chance to provide qualitative feedback on each item's wording if they are given a free-response blank next to each item (Howard and Melloy, 2016). For example, this allows respondents to identify items that are confusing, leading or double-barreled.

We recruited a sample of 31 academics from a variety of disciplines (e.g., marketing, management, economics). One of the benefits of conducting a pre-test assessment of a measure's content adequacy is the ability to use small samples before a major data collection (Anderson and Gerbing, 1991; Hinkin and Tracey, 1999). Hence, even though a sample size of 31 would seem small for other types of analysis, it was adequate for this one. We provided participants with the definition of co-op ostracism, the definitions of other related constructs, and the list of all items presented in random order. Participants were asked to assign each item to one of the construct categories according to the respective construct definitions.

We used all items from the constructs of "social undermining" developed by Duffy et al. (2002) (sample item: "to what extent others at the co-op compete with you for status and recognition") and "interpersonal justice" developed by Colquitt (2001) (sample item: "to what extent others at the co-op treat you in a polite manner"). We chose these constructs not only because they bear conceptual relevance to ostracism, but also because, unlike ostracism, they

engage rather than disengage targets in social dynamics and at the same time constitute flagrant forms of (mis)treatment. More specifically, social undermining involves the presence of unwanted behavior and negative social attention and treatment, while interpersonal justice comprises the presence of wanted behavior and positive social attention and treatment. Moreover, these constructs contained items that had been included in our pool of ostracism items in the item-generation stage, giving us now the possibility also to examine whether these items better reflected ostracism. Finally, we used all items from “distrust” adapted from Scott et al. (2013) (sample item: “to what extent you cannot rely on others at the co-op). Even though distrust might be treated more as a consequence of - rather than a negative interpersonal experience in itself - it is strongly related to exclusionary behaviors (like ostracism), and it typically generates further incivility (Scott et al., 2013). Additionally, we treated distrust from the source’s viewpoint, considering that interpersonal mistreatment involves two parties (i.e., sources and targets), thus also testing whether participants would distinguish between the two. In sum, we used 33 items, namely 16 for ostracism, 10 for social undermining, 4 for interpersonal justice, and 3 for distrust.

### *Results*

First of all, the qualitative feedback was positive, and no issues were reported. We next assessed the substantive validity of the scale items. Anderson and Gerbing (1991) developed two indices for this kind of assessment: the substantive agreement index ( $P_{SA}$ ) and the substantive validity index ( $C_{SV}$ ). The former reflects the proportion of respondents who assign an item to its intended construct. The latter measures the extent to which respondents assign an item to its posited construct more than to any other construct. Items that are assigned to their correct constructs demonstrate higher levels of substantive validity than do items that are attached to incorrect ones. To balance substantive validity and scale economy, we retained items with a  $P_{SA}$  of at least 0.90 and a  $C_{SV}$  of at least

0.85, even though such thresholds would be considered as strict if our sample size would be taken into account (see Howard and Melloy, 2016). The resulting scale contained nine items<sup>12</sup>. All of them were significantly assigned to the ostracism construct beyond chance levels and tapped into the notion of being ostracized within a co-op. We also viewed this as strong evidence for their face validity.

## **Step 6: Assessment of Scale Properties**

### *Methodology*

To assess the properties of our 9-item scale we targeted three of the most popular co-op sectors globally (World Co-operative Monitor, 2015; 2017). We thus collaborated with an agribusiness supply co-op (i.e., sample A), a retail banking co-op (i.e., sample B), and a consumer co-op (i.e., sample C) from a country in South-eastern Europe. These three collectively accounted for 64% of all sectors in 2013 global turnover terms (27%, 21%, and 16% respectively) (World Co-operative Monitor, 2015), and 58% of all sectors in 2015 global turnover terms (28%, 18%, and 12% respectively) (World Co-operative Monitor, 2017). We recruited participants from all samples using the store-intercept approach (Sharma, 2010) and an online invitation. We offered all respondents the chance to participate in a drawing for a voucher redeemable at the co-op stores. The collection took place over a two-month term, and a total of 627 co-op members took part (see Table 4a.1). To check for response bias, we compared online

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<sup>12</sup> Three items from the construct of social undermining had been sourced in the item generation stage and then used in the initial Steps until they were eliminated. These three items were the following: “to what extent others at the co-op belittled you or your ideas”, “to what extent others at the co-op did not give you as much help as they promised”, and “to what extent others at the co-op gave you incorrect or misleading information”. In the item-sort task of Step 5, the first one exhibited a high  $P_{SA}$  of 0.97 and a high  $C_{SV}$  of 0.94, while no respondent matched it with ostracism. The second one had a low  $P_{SA}$  of 0.55 and a very low  $C_{SV}$  of 0.32, with quite a few respondents matching it with ostracism (7 out of 31) instead of its original construct. Finally, the third one had a mediocre  $P_{SA}$  of 0.71 and a low  $C_{SV}$  of 0.55, with a mere 3 respondents matching it with ostracism. We viewed these results as further evidence for the validity of the resulting 9-item co-op ostracism scale.

responses (46%) with offline ones across background characteristics (e.g., gender, age). We found no significant differences.

**Table 4a.1** - Characteristics of the Step 6 samples

Sample	Source	N	Gender	Average age	Average length of membership	Average patronage <sup>a</sup>	Committee participation
A	Agribusiness co-op	159	57% male	36	4.3 years	81%	30% yes
B	Financial services co-op	324	72% male	45	10 years	18 shares	22% yes
C	Consumer co-op	144	58% male	48	3.9 years	53%	22% yes

<sup>a</sup> For sample B, we were not permitted to measure the % of use members do with their co-op. We thus used a proxy, namely the number of shares people retain in the co-op. For sample A, patronage refers to the share of wallet in services terms, while for sample C, to the share of wallet in product terms.

### *Results*

We first performed an exploratory factor analysis (EFA - principal component analysis with oblique rotation) on each sample to provide an initial assessment of the dimensionality and the properties of our scale items. Across the three samples, only one factor was extracted, with the 9-item scale accounting for 82.04%, 73.39%, and 74.15% of the variance respectively. Moreover, items loaded consistently on the sole factor, with loadings which ranged from 0.79 to 0.94. We then performed a confirmatory factor analysis (CFA) using AMOS 23 to cross-validate the solution obtained in the EFA. The model fit was evaluated using a series of indices recommended by Hu and Bentler (1999) while also favored by marketing studies (e.g., Batra et al., 2012; Shams et al., 2015) - the comparative fit index (CFI), non-normed fit index (NNFI), and standardized root mean square residual (SRMR) - along with the reporting of chi-square ( $\chi^2$ ), degrees of freedom, and their ratio. These fit indices are also reported because of their robustness, stability, and lack of sensitivity to sample size (Fan et al., 1999). Moreover, Hair et al. (2010) recommend reporting a goodness (e.g., CFI) and a

badness of fit indicator (e.g., SRMR). Fit statistics met all the standard criteria (see Table 4a.2).

We also calculated coefficient alpha and scale composite reliability to assess construct reliability (Hair et al., 2010). High levels of both were achieved (> 0.95). Average variance extracted (AVE; Fornell and Larcker, 1981) and the item factor loadings (Anderson and Gerbing, 1988) were used for the assessment of convergent validity. Our construct demonstrated high convergent validity (see Table 4a.2), as all AVEs were well above the 0.5 criterion and all standardized factor loadings ranged from 0.76 to 0.93.

**Table 4a.2 - CFA summary**

Measurement item	Sample A			Sample B			Sample C		
	Mean	S.D.	SL	Mean	S.D.	SL	Mean	S.D.	SL
Others show no interest for you	2.43	1.76	0.92	2.14	1.53	0.81	1.97	1.33	0.81
Others do not respond to you or to your messages	2.54	1.80	0.90	2.06	1.49	0.83	2.01	1.38	0.93
Others avoid you	2.38	1.79	0.90	2.02	1.50	0.84	1.76	1.16	0.81
Others show little interest in your opinion	2.60	1.72	0.87	2.19	1.54	0.85	2.14	1.39	0.84
Others disregard your interests	2.48	1.82	0.93	2.23	1.54	0.88	2.14	1.39	0.78
Others ignore you	2.33	1.69	0.88	1.81	1.34	0.86	1.81	1.13	0.86
Your voice is not heard	2.48	1.70	0.92	2.26	1.59	0.79	2.04	1.27	0.89
Others keep information from you	2.74	1.80	0.76	2.19	1.58	0.81	1.96	1.20	0.79
Others do not pay attention to you	2.50	1.80	0.93	1.95	1.46	0.84	2.06	1.36	0.85
CFI (> 0.95) / NNFI (> 0.9)	0.99 / 0.98			0.98 / 0.98			0.98 / 0.97		
SRMR (< 0.08)	0.017			0.020			0.027		
$\chi^2/df$ (< 5)	(46.6/27) 1.73			(66.8/27) 2.47			(49.4/27) 1.83		
Cronbach's $\alpha$ / Scale composite reliability	0.97 / 0.97			0.95 / 0.95			0.95 / 0.96		
Average variance extracted (AVE)	0.80			0.70			0.71		

**Note:** The three potential sources of ostracism (i.e., employees, other members, members of the BoD) were given as examples for “others”.

We then proceeded to assess discriminant validity and the nomological net of co-op ostracism. In so doing, we employed social (mis)treatment and customer-related constructs. First, we contrasted co-op ostracism with conceptually related, albeit dissimilar, constructs assessing (dys)functional social relations. We used interpersonal justice (IJ; Colquitt, 2001) and interpersonal conflict (IC; Spector and Jex, 1998). Unlike ostracism, these concepts are interactional and blatant forms of social (mis)treatment. IJ, for example, comprises the presence of wanted behavior as well as positive social attention and treatment. We would expect IJ and ostracism to be negatively related because the former reflects behavior that will be desirable and beneficial to co-op member-customers. In contrast, we would expect a positive relationship between IC and ostracism as both reflect potentially harmful experiences. In both cases, we anticipated a strong relationship, the pattern of which would still prove their distinction and provide support for discriminant validity. All measurement items can be found in Table 4a.3.

**Table 4a.3** - Measurement scales and items used for discriminant & nomological validity

Measure	Items
Interpersonal justice (Colquitt, 2001)	<i>To what extent others at the co-op...</i> 1. treat you in a polite manner 2. treat you with dignity 3. treat you with respect 4. refrain from improper remarks or comments
Interpersonal conflict (Spector and Jex, 1998)	1. You get into arguments with others at the co-op 2. Others at the co-op are rude to you 3. Others at the co-op do nasty things to you
SERVQUAL (Parasuraman et al., 1988)	1. Your co-op has up-to-date equipment 2. Your co-op's physical facilities are visually appealing 3. Your co-op keeps its records accurately 4. Your co-op gives you individual attention 5. You can trust employees of your co-op 6. Employees of your co-op know what your needs are 7. Your co-op has your best interests at heart

Satisfaction (Hernández-Espallardo et al., 2013)	<ol style="list-style-type: none"> <li>1. The co-op is a good firm to do business with</li> <li>2. You are very pleased with the way the co-op works</li> <li>3. Overall, you are satisfied with the results of your co-op membership</li> </ol>
Customer service (Gómez et al., 2004)	<p><i>How satisfied are you with the...</i></p> <ol style="list-style-type: none"> <li>1. overall store service</li> <li>2. speed of checkout</li> <li>3. service provided by baggers</li> <li>4. overall friendliness of the store associates</li> </ol>
Quality (Gómez et al., 2004)	<ol style="list-style-type: none"> <li>1. variety in the produce department</li> <li>2. quality of the produce department</li> <li>3. overall store cleanliness inside</li> <li>4. variety of fresh meat items</li> <li>5. quality of fresh meat items</li> <li>6. availability of everyday grocery items</li> </ol>
Value (Gómez et al., 2004)	<ol style="list-style-type: none"> <li>1. overall prices as compared to competition</li> <li>2. prices of loyalty card specials</li> <li>3. availability of loyalty card specials</li> <li>4. overall value for your money</li> </ol>

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Next, we evaluated the relationship between co-op ostracism and members' perceptions of service quality or store attributes, as well as with overall satisfaction. Satisfaction is a focal consequence of relational and social aspects (Lusch et al., 2011), particularly in a co-op context (Mazzarol et al., 2014). Ostracism strikes at the heart of these aspects (Williams, 2009), thus possibly lowering the general appraisal of the partnership. Moreover, ostracism might harm the more particular facets of partnership appraisal, like service quality or store attributes, because members' primary purpose is still to obtain goods or services they need as co-op users (Birchall, 2013). Besides, as core customers, members expect to enjoy special customer care (Puusa et al., 2013), rather than negligence or ill-treatment. We, therefore, posited that members with higher ostracism perceptions would have lower scores on service assessment and satisfaction. However, we expected that members would distinguish between ostracism and such customer-related constructs, or satisfaction. For the latter's measurement, Hernández-Espallardo et al.'s (2013) scale was adopted. For service quality assessment in samples A and B, seven items from the SERVQUAL

scale (Parasuraman et al., 1988) were adopted. For sample C, we used three store attribute factors from Gómez et al. (2004), namely “customer service”, “quality”, and “value”.

We report bivariate correlations between co-op ostracism and all other constructs in Table 4a.4. Overall, correlation coefficients were consistent with our expectations. IC was positively related to ostracism, while IJ was negatively related. Likewise, we observed a significant, negative correlation between our ostracism scale and all other customer-related constructs. We also conducted Fornell and Larcker’s (1981) discriminant validity test, which requires that, when taking any pair of constructs, the square root of the AVE for each should be greater than the correlation coefficient between the two (Devlin et al., 2014). As we can see from Table 4a.4, this condition was met.

**Table 4a.4** - Discriminant & nomological validity results

Construct name	Sample A			Sample B			Sample C		
	SCR	√AVE	r	SCR	√AVE	r	SCR	√AVE	r
Ostracism	0.97	0.89	1	0.96	0.84	1	0.96	0.84	1
IC	0.95	0.93	0.58	0.96	0.95	0.65	0.94	0.92	0.40
IJ	0.79	0.71	-0.50	0.95	0.90	-0.50	0.88	0.81	-0.44
SERVQUAL	0.86	0.74	-0.41	0.88	0.72	-0.60	n/a	n/a	n/a
Satisfaction	0.89	0.85	-0.58	0.93	0.91	-0.70	0.83	0.79	-0.66
CS	n/a	n/a	n/a	n/a	n/a	n/a	0.80	0.71	-0.49
Quality	n/a	n/a	n/a	n/a	n/a	n/a	0.86	0.71	-0.46
Value	n/a	n/a	n/a	n/a	n/a	n/a	0.90	0.83	-0.52

**Notes:** IC = interpersonal conflict; IJ = interpersonal justice; CS = customer service; SCR = scale composite reliability; AVE = average variance extracted; n/a = non-applicable; All correlations significant at  $p < 0.001$ .

Taken together, the results of these analyses confirmed that co-op ostracism and all other scales measure distinct theoretical constructs, yet, as expected, exhibit strong links. These findings supported the discriminant and nomological validity of the proposed scale and provided initial evidence that



ostracism, albeit a low base-rate phenomenon is a common unsettling experience in co-op life.

To enhance the robustness of our outcomes, we performed two additional empirical checks in sample C. First, we tested for differences between members' and non-members' evaluations. We opted for sample C, as the consumer co-op has many non-member customers. To ascertain that members maintain higher expectations, we tested for differences between members' and non-members' (a sample of 110) evaluations across the three store attribute factors (i.e., customer service = CS; quality = Q; value = V). Not surprisingly, all three had a lower mean score when members rated them (i.e.,  $M_{CS\text{difference}} = -0.16$ ,  $t(252) = -2.04$ ,  $p < 0.05$ ;  $M_{Q\text{difference}} = -0.31$ ,  $t(252) = -2.85$ ,  $p < 0.01$ ;  $M_{V\text{difference}} = -0.42$ ,  $t(252) = -3.14$ ,  $p < .01$ ). In addition, members had a higher mean patronage (i.e., share of wallet in % terms;  $M_{P\text{difference}} = 8.21$ ,  $t(246) = 2.45$ ,  $p < 0.05$ ). In other words, it seems that, as the core patrons and cardinal stakeholders, members are more demanding than other customers.

Moreover, even though we had stressed in our conceptualization that we expected ostracism not to be dependent on the source, in line with past research (e.g., WOS studies), we tested for differential effects. More specifically, we run t-tests for the three potential sources, namely members, employees and BoD members, in sample C. None of the independent samples t-tests proved significant ( $t(104) = 0.69$ ,  $p = 0.49$ ;  $t(104) = -1.49$ ,  $p = 0.14$ ;  $t(104) = -1.37$ ,  $p = 0.17$ , respectively). Also, all ANOVA F-tests exploring interactions were not significant either. These results confirmed our expectation that ostracism might be perpetrated by a variety of sources within the co-op and reaffirmed our decision not to differentiate between ostracism sources.

Finally, we controlled for method effects and socially desirable responding. To diminish common method variance, social desirability bias, and evaluation apprehension, we implemented several of the procedural remedies

suggested by Podsakoff et al. (2003) and MacKenzie and Podsakoff (2012). First, we psychologically separated our measures by placing them into different thematic sections in the questionnaire, such that they appeared unrelated. We dispersed buffer items and used different instructions. Secondly, we assured participants that their responses would be aggregated and used only for research purposes while no other would see them. Additionally, we veiled the study's purpose, emphasized our interest in their personal opinions, and clarified that our intention was not to evaluate them. Furthermore, we investigated the potential for social desirability bias. Respondents provided their answers to a subset (i.e., five items) of the Marlowe-Crowne Scale (Crowne and Marlowe, 1960) using a 7-point scale (1 = "not true" to 7 = "very true"). Results revealed that ostracism was not significantly correlated with the social desirability set (i.e., sample A:  $r = -0.09, p > 0.10$ ; sample B:  $r = -0.09, p > 0.10$ ; sample C:  $r = -0.11, p > 0.10$ ).

## **Step 7: External reliability**

### *Methodology*

To assess our scale's external reliability, we performed a test-retest reliability check. When doing so, factors such as the time between administrations of the study and the nature of the scale need to be considered. We, therefore, employed careful controls during the Step 7 study design as well as during the data collection process in an effort to reduce biases associated with memory or variability effects. For example, we adopted standard procedural remedies (e.g., spatial separation, dispersion of unrelated buffer items, masked study purpose) (MacKenzie and Podsakoff, 2012) and controlled for potential confounds (e.g., intervening events) (Podsakoff et al., 2003).

Responses were collected on two occasions, separated by four weeks, using an online survey distributed through Amazon Mechanical Turk, an online marketplace in which contributors can volunteer to respond to surveys for a

nominal remuneration. We requested a sample of 150 respondents, and the survey was hosted on a first come, first served basis. As many as 177 people opened the link to the survey, 150 of which completed it on the first occasion and 146 on the second. We included two test questions to ensure that participants were paying sufficient attention. In total, 18 cases were dropped for failing the quality tests or for not being the same participants or due to major episodes having taken place in-between administrations, resulting in 132 usable responses.

### ***Results***

The sample was composed of U.S. and Canadian citizens who had been members in a broad array of co-ops (e.g., agricultural, financial, consumer, housing, social) for at least two years ( $M = 4.77$ ,  $SD = 2.96$ ), had a mean age of 32.16 years ( $SD = 9.81$ ), and 65% were male. In assessing the test-retest reliability of the scale, paired sample t-tests and test-retest correlations were first calculated between individual scale items. The results of the paired t-tests revealed no significant differences. Also, correlations between the scale items ranged from 0.47 to 0.67. Moreover, the scale demonstrated a rather high overall test-retest reliability, as overall mean scale scores from  $t_1$  and  $t_2$  were highly related ( $r = 0.84$ ,  $p < 0.01$ ). Taken as a whole, these results suggested that the measures were stable across time periods, providing further support for the general stability of the newly developed co-op ostracism scale.

## **GENERAL DISCUSSION**

### **Discussion and Implications**

Member-customer proximity enables co-ops to thrive, even when other business forms might fail, as in times of crisis (Birchall, 2013; Byrne et al., 2015). This inherent relational proximity, however, is challenged by the core threat of membership “distance”, which acts as a relationship poison. This co-op peril prompted us to turn to ostracism, a hallmark concept of social exclusion and

mistreatment research. To date, even though studies on the co-op model pros and cons abound (Birchall and Ketilson, 2009; Borgen, 2011; Cook, 1995; Iliopoulos, 2014; Levi and Davis, 2008; Nilsson, 2001; Sexton and Iskow, 1988), scholars' understanding of the co-op model from a member-customer perspective as well as of the ostracism phenomenon in co-ops has been limited.

This article addresses this critical gap in co-op literature by conceptualizing, developing and testing a comprehensive scale measuring member-customer ostracism in co-ops. Following a meticulous seven-step process based on accepted procedures (e.g., Anderson and Gerbing, 1991; Howard and Melloy, 2016; Netemeyer et al., 2003; Nunnally and Bernstein, 1994) and customer research studies (e.g., Devlin et al., 2014; Kidwell et al., 2008; Shams et al., 2015), we detected ostracism's poisonous presence in co-ops and developed a diagnostic tool. The results of our scale development process demonstrate that our relatively short-form tool reliably and validly measures members' perceptions of being subjected to neglecting behaviors by others (e.g., other members, employees) within the co-op. This tool can thus support initiatives focused on repelling ostracism's deleterious effects while shielding instrumental relational assets (e.g., proximity to members).

Given that this was the first study to examine the psychometric properties of co-op ostracism, the present results should be considered tentative pending future studies. Nevertheless, the findings reported herein provide initial promise for the scale in terms of its underlying factor structure, convergent, discriminant, and nomological validity, as well as of its general stability. The study outcomes also confirm our general expectation that co-op ostracism is fairly common in co-op life, hurting member-customers and the co-op as an organization alike. Consequently, the scale introduced in this study will help pave the way for greater conceptual and empirical rigor in understanding the co-op model from a

member-customer perspective and intensifying research on the exploration of co-ops' social environment.

### **Limitations and Future Research Suggestions**

As with any other research project, this study suffers from certain limitations which, in turn, point to avenues for future research. Although the development of the scale was based on different domains and samples, further analyses and testing in other contexts (e.g., country settings) are necessary. In addition, even though in Step 7 we gathered support for the external reliability of the scale, future studies incorporating longitudinal methods would help researchers to discern the long-term trajectory of co-op ostracism effects.

Furthermore, our scale was not designed to differentiate between different ostracism sources. We did test for differences in ostracism perceptions based on the source (i.e., other members, employees, BoD members), but none was found. Although it may be beneficial in future work to differentiate the foci of co-op ostracism and examine if differential responses are prompted, our conceptualization of the construct was driven by prevailing theoretical and empirical considerations. In this regard, the vast majority of available literature - particularly the empirical one, such as workplace ostracism studies (e.g., Cullen et al., 2012; Leunga et al., 2011; O'Reilly et al., 2014; Scott et al., 2013; Wu et al., 2012; Xu et al., 2017) - suggests that ostracism or its responses are not dependent on the source. Besides, a mere one-person exclusion is sufficient to elicit adverse outcomes, even against inclusive individuals who may be seen as part of the excluding alliance (Chernyak and Zayas 2010; Critcher and Zayas 2014).

Finally, as with any study examining a novel self-report measure against established self-report measures, the findings presented herein may be due to possible shared method variance rather than being due to hypothesized links between the constructs (see Step 6). This concern can be readily addressed in future studies by favoring research designs that incorporate multiple source

methods. In general, we took several precautionary steps and implemented plenty of the procedural and statistical remedies suggested by Podsakoff et al. (2003) and MacKenzie and Podsakoff (2012) to free our measure of methodological artifacts, but we cannot rule out that the latter may have exerted some influence. For example, one must keep in mind that our scale was developed with anonymous respondents. Even though it is customary to assure anonymity or confidentiality of responses, it is difficult to know to what extent the results and validity of the scale would be different if the instruments were given to respondents who were not assured anonymity. Additional studies are clearly needed to corroborate our findings.

In summary, we hope that our diagnostic tool will prove useful to the future study of co-op ostracism, helping to both facilitate and encourage the much-needed empirical research into this significant form of implicit mistreatment within the co-ops' social environment.



## CHAPTER 4b

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### Assessing co-operative ostracism's influence on relational exchange outcomes and counterpoising its relationship-poisoning effects

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*This chapter is partly based on:*

Benos, T., Kalogeras, N., de Ruyter, K., and Wetzels, M. (2018). Diagnosing member-customer ostracism in co-operatives and counterpoising its relationship-poisoning effects. *European Journal of Marketing*, 52(9/10), 1778-1801.



## INTRODUCTION

As the primary users and sole owners, co-operative (co-op) members assume a close relationship with their co-op, which facilitates a deeper understanding of and better response to their needs, engendering a natural relational advantage (Byrne et al., 2015; Mazzarol et al., 2014). Strikingly, as we showed in Chapter 4a, co-ops' inherent relational advantage is debilitating, as members increasingly experience ostracism behaviors within their co-op groups. In the same Chapter, Chapter 4a, we adopted a member-customer perspective to examine this core member-customer threat. Accordingly, we explored ostracism in different co-ops and developed a reliable and valid diagnostic tool following an elaborate seven-step process based on established procedures.

In this Chapter, we delve into the toxic effects of ostracism in co-ops, concentrating on empirically examining how co-op ostracism taints the relationship between members and their co-op, poisoning crucial relational assets like membership maintenance. We turn to relationship marketing (RM) research (e.g., Aurier and N'Goala, 2010; Morgan and Hunt, 1994; Payne and Frow, 2017; Vincent and Webster, 2013). All RM efforts necessitate action, which regularly contributes directly or indirectly to feelings of customer mistreatment. Recent RM research (e.g., Nguyen, 2012), for example, has emphasized how customer differential treatment (e.g., favoritism) frequently leads to perceptions of exclusion. What remains relatively unexplored is the "dark side" behavior of RM (Payne and Frow, 2017), particularly how customers perceive and react to mistreatment related to *inaction*. This form of implicit and often inadvertent harm-doing might be best explained by ostracism, which, albeit a relational phenomenon, involves the omission, rather than the commission of behavior (Robinson et al., 2013; Williams, 2009). Co-ops seem the ideal study context given their solid ethical premises (ICA, 2013; Puusa et al., 2013) coupled with the full membership status and relational proximity their core customers assume. The

principal objective of this Chapter, therefore, is to assess co-op ostracism's impact on important membership and relational exchange outcomes.

We develop a core conceptual model to empirically assess co-op ostracism's distinct influence on two relational exchange outcomes that condition co-ops' ability to maintain the symbiotic relationship with their cardinal customers (i.e., withdrawal intentions) and expand their customer reach (i.e., and word-of-mouth). The strong effects on both outcomes across three different co-op samples and domains (i.e., agribusiness, retail banking, consumer) support our premise that ostracism presents a core threat to the core co-op relational advantage, acting as a "relationship poison" for both member-customers and the co-op itself. Our in-depth study of this relatively unexplored and implicit relationship-destroying factor in a de facto relationally profuse context advances our RM knowledge. It offers a fresh perspective on key RM elements like customer membership and, at the same time, offers a fresh critique of RM's *implicit* harmful effects.

Moreover, we develop a strategy to buffer ostracism's adverse effect on exchange outcomes and protect relational assets. We follow the lead of recent ostracism studies which explore coping strategies, such as how to soothe the distress caused by ostracism (e.g., Wu et al., 2012; Zwolinski, 2014) or how to reduce its aversive impacts (e.g., Lelieveld et al., 2012; Tang and Richardson, 2013). In a separate follow-up study, we develop and test an extended core conceptual framework that centers on the joint protective benefit of perceived "groupness" (i.e., entitativity) and social capital's shared aspect (i.e., cognitive capital). We posit that cognitive capital reinforces group entitativity and empirically verify that their coupling appeases co-op ostracism's influence on withdrawal intentions. Our approach extends the nomological network of RM with a cognitive-based intervention, which has important implications for relationship-building strategies, demonstrating that the (primarily cognitive)

sense of community and mutuality serves as an effective “antidote” against the deleterious effects of customer disconnection.

The remainder of this Chapter is structured as follows. We first develop the core conceptual model and derive the hypotheses. Next, we present the two empirical studies included in the article. In Study 1, we empirically test our core conceptual framework with data from three different co-ops. In Study 2, we examine the suggested coping strategy and the extended core conceptual model. Finally, we conclude this Chapter with theoretical and practical implications.

## **THEORETICAL BACKGROUND**

### **Co-op Membership and Relationship Marketing**

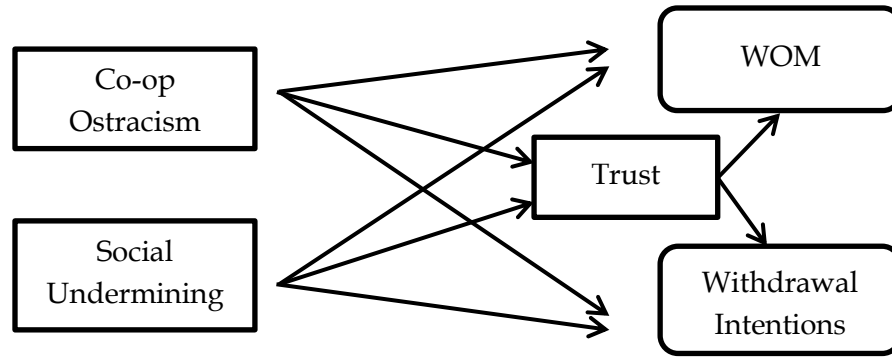
Membership is the central element of co-op enterprises and can also be seen as a comprehensive relationship investment. Many enterprises attempt to emulate co-op membership by inviting customers to join loyalty schemes, club card packages, referral reward programs, and user communities. These instruments along with interactive programs like database marketing, services marketing, and customer partnering, have become an essential component of RM efforts (Verma et al., 2016). Their popularity signifies the business value of both membership and customer relationships in competitive markets. Moreover, several companies even adopt a membership structure (e.g., membership associations) with RM being vital for success (Vincent and Webster, 2013).

Co-op membership differs, however, as its centrality renders co-ops value-to-members maximizers (Birchall, 2011; Puusa et al., 2013). Also, unlike co-op membership, conventional RM arrangements or membership associations do not grant customers rights of ownership or much involvement in business decision-making. Still, co-op members’ main purpose is not to benefit from their investment through increased share prices or dividends, but rather to obtain goods or services they need as users (Hansmann, 1996). Their demand for

distinct goods or services, in turn, suggests that the principal goal of their collective enterprise is not to maximize profits. Instead, the priority is to deliver member benefits over the long term and at the lowest cost possible (Birchall, 2011; Kalogeras et al., 2009), maximizing the satisfaction of members' needs (Puusa et al., 2013). This is a unique value proposition distinguishing the co-op model from other forms and ascertaining that members are co-op's closest and most important customers (Mazzarol et al. 2014). In fact, the close relationship with member-customers facilitates a deeper understanding of their expectations, laying the ground for the creation of a solid and loyal customer base.

### **Core Conceptual Model**

If members experience ostracism behaviors, such as ignorance, weak voice, and unattended interests within their co-op group, why they should keep honoring their co-op relationship? In addressing this concern, we focus on two critical relational exchange outcomes, namely the expectation of continuity and word-of-mouth, for two reasons. First of all, as both are amongst the most common outcomes expected from RM efforts (Aurier and N'Goala, 2010; Choi and Choi, 2014; Verma et al., 2016; Vincent and Webster, 2013). Secondly, both can be critical in view of member centrality in the co-op context. If co-ops are not able to maintain their member-customer base or to renew it, their survival is at stake (Hernández-Espallardo et al., 2013; Mazzarol et al., 2014). Hence, the expectation of discontinuity through the (reverse) measure of withdrawal intentions (WI) may damage membership while word-of-mouth (WOM) may foster it.



**Figure 4b.1** - Core conceptual framework

We supplement our framework with a relationship-building concept and a competing account to ostracism. That is, we also examine whether ostracism reduces the likelihood of continuing the relationship or referring the co-op, over and above “trust” and “social undermining” respectively. The former is considered a vital determinant of relationship success and is one of the most frequently studied constructs in RM research (Aurier and N’Goala, 2010; Verma et al., 2016). The latter is also an insidious form of social mistreatment, though flagrant and interactional (Duffy et al., 2002; Ferris et al., 2008). We aim to test whether trust or social undermining can overshadow ostracism’s toxic effects.

### Hypotheses Development

Perhaps the prime reason why ostracism will hurt membership outcomes is its conflict with top co-op priorities, like the sense of inclusion, attention, and treatment (Nilsson, 2001; Novkovic, 2008). Though a subtle form of exclusion and mistreatment, ostracism presents a salient experience of being left out, violating individuals’ expectancies of being included (Gerber and Wheeler, 2014; Poon et al., 2013; Svetieva et al., 2015). The purposeful or unintentional failure of co-op participants to act in ways that make members feel included or enjoy membership benefits (e.g., being attended to, having their voice heard) can be rather distressing. Reaction to ostracism often involves withdrawal (Ren et al., 2016; Wesselmann et al., 2015; Williams, 2001), such as employee turnover

(O'Reilly et al., 2014), or adversarial demeanor (Poon and Chen, 2014; Williams, 2001), such as displaced aggression (Rajchert and Winiewski, 2016). Ostracism can thus be expected to inflict member-customer ill-disposed responses (Poon et al., 2013), like withdrawal thoughts or reluctance to praise the co-op group to other people. Formally, we hypothesize:

**H1:** Ostracism has (a) a positive effect on WI and (b) a negative effect on WOM.

The role of trust has been the focus of many studies dealing with relationships in markets and has been shown to play an essential role in relationship building and maintenance (Aurier and N'Goala, 2010; Morgan and Hunt, 1994; Nguyen, 2012). In the co-op context, trust between co-op participants (e.g., members, BoD members, managers) is crucial (Byrne et al., 2015; Nilsson, 2001; Nilsson et al., 2012). In this article, we treat trust as a cognitive expectation represented by a member-customer's confidence in others' reliability and integrity (Morgan and Hunt, 1994). In customer relationships, trust is regularly used to explain an individual's behavior towards the actual value provider (Sirdeshmukh et al., 2002). Hence, we expect that if a co-op member thinks that others within the co-op can be relied on, he or she will also behave favorably towards what they jointly derive value from (i.e., the co-op itself). Central to the fundamental role of trust within exchange relationships is the tenet that it reduces behavioral uncertainty related to the actions of others (Morgan and Hunt, 1994; Nguyen, 2012; Sirdeshmukh et al., 2002).

Ostracism, however, reflects the inaction of others, described as a "non-behavior" (Rajchert and Winiewski, 2016; Williams, 2009). As a result, neglecting to act in ways that engage co-op members might add a different kind of uncertainty that instead disengages them. This is why we expect ostracism to exert undue influence on relational exchange outcomes, no matter what the effects of trust might be. In other words, ostracism perceptions might partially destroy the relationship that trust helps to build and maintain. Of course, we

cannot rule out that ostracism's influence is partly interceded by trust, which has repeatedly been shown to be a pivotal mediator of relationship maintenance and development (Aurier and N'Goala, 2010; Vincent and Webster, 2013). All in all, we anticipate that ostracism serves as a nonmatching extension to the explanation of relationship-building factors (like trust), and should still significantly affect WI and WOM after accounting for the direct effects of trust. We, therefore, hypothesize:

**H2:** Ostracism has significant direct effects on (a) WI and (b) WOM, after accounting for the direct effects of trust.

Social rejection and ostracism are terms that are often used interchangeably (Wesselmann et al., 2015). Even though each has specifically associated research paradigms, their fundamental theoretical premises are all compatible with research on social rejection, exclusion and especially mistreatment (Svetieva et al., 2015; Zwolinski, 2014). Social undermining is a form of social rejection, but also an insidious social mistreatment form like ostracism (Ferris et al., 2008). Unlike ostracism behaviors, social undermining ones (e.g., insults) are overt and allow targets to know why they are mistreated. Ostracized targets, in contrast, commonly report abhorring the ambiguity inherent in ostracism episodes (e.g., whether or not it is purposeful, the reason for its use; Nezlek et al., 2015). We expect ostracism to have a profound effect on relational exchange outcomes, despite the likely presence of competing mistreatment behavior like social undermining. Besides, co-op members' ingrained need for connection with their co-op can be principally thwarted by ostracism, which habitually provokes heightened social disconnection (Gerber and Wheeler, 2014; Mead et al., 2011). Nevertheless, we do not expect ostracism or social undermining to outperform or offset one another; thus, we do not formulate a particular hypothesis. We just set to confirm that co-op ostracism

maintains its influence on critical exchange outcomes (and essential elements for co-op membership) even when other mistreatment behaviors might be manifest.

## **STUDY 1: TESTING THE CORE CONCEPTUAL FRAMEWORK**

### **Methodology**

Similar to Step 6 in Chapter 4a, we targeted three of the most popular co-op sectors globally and relied on International Co-operative Alliance's (ICA) categorization and reports (World Co-operative Monitor, 2015; 2017). Hence, we collaborated with an agribusiness supply co-op (i.e., sample A), a retail banking co-op (i.e., sample B), and a consumer co-op (i.e., sample C) from a country in South-eastern Europe. We recruited respondents from all samples using the store-intercept approach (Sharma, 2010) and an online invitation. We offered them the chance to win vouchers redeemable at the co-op stores. Collection lasted three months and yielded a total of 573 responses (see Table 4b.1). We introduced a temporal separation between the focal construct (i.e., co-op ostracism) and all the rest, following MacKenzie and Podsakoff's (2012) suggestion to diminish memory availability.

A three-item WOM scale (Choi and Choi, 2014) was adapted to measure the extent to which member-customers were willing to recommend the co-op to others. WI were examined by adapting three items from Jensen et al.'s (2013) turnover intentions measure, gauging members' propensity to withdraw from the co-op. We measured trust with four items capturing the reliability and integrity of others in the co-op (i.e., other members, BoD members, and employees) (Morgan and Hunt, 1994). To measure social undermining, we picked four items that had demonstrated the highest substantive validity in Step 5 of Chapter 4a, but also reflected behaviors of explicit mistreatment (e.g., "others belittle you or your ideas"; Duffy et al., 2002). All measures were reflective.



**Table 4b.1** - Study 2 descriptive statistics and correlations

Sample	Source	N	Gender	Average age	Average length of membership	Average patronage <sup>a</sup>	Committee participation
A	Agribusiness co-op	146	57% male	35	4.3 years	81%	31% yes
B	Financial services co-op	301	72% male	45	10 years	13 shares	22% yes
C	Consumer co-op	126	59% male	48	3.9 years	54%	23% yes

Sample A										
	M	SD	√AVE	SCR	1	2	3	4	5	
1 Co-op ostracism	2.53	1.65	0.90	0.98	(0.97)					
2 Social undermining	2.31	0.97	0.81	0.89	0.36	(0.88)				
3 Trust	5.39	0.95	0.74	0.83	-0.36	-0.70	(0.83)			
4 WI	2.36	1.12	0.81	0.85	0.54	0.59	-0.58	(0.84)		
5 WOM	5.70	1.10	0.86	0.89	-0.52	-0.58	0.59	-0.65	(0.89)	

Sample B										
	M	SD	√AVE	SCR	1	2	3	4	5	
1 Co-op ostracism	2.07	1.26	0.83	0.95	(0.95)					
2 Social undermining	2.80	1.18	0.91	0.95	0.51	(0.95)				
3 Trust	5.20	1.09	0.78	0.86	-0.51	-0.63	(0.85)			
4 WI	2.66	1.30	0.88	0.91	0.59	0.53	-0.57	(0.89)		
5 WOM	5.60	1.22	0.93	0.95	-0.52	-0.44	0.51	-0.63	(0.95)	

Sample C										
	M	SD	√AVE	SCR	1	2	3	4	5	
1 Co-op ostracism	1.98	1.16	0.85	0.96	(0.95)					
2 Social undermining	2.21	0.78	0.70	0.78	0.46	(0.75)				
3 Trust	5.74	0.84	0.84	0.90	-0.45	-0.57	(0.90)			
4 WI	2.23	1.08	0.88	0.91	0.59	0.41	-0.52	(0.91)		
5 WOM	6.26	0.84	0.84	0.87	-0.50	-0.45	0.53	-0.60	(0.86)	

**Notes:** WI = withdrawal intentions; WOM = word of mouth; AVE = average variance extracted; SCR = scale composite reliability; Scale alpha reliabilities are given on the diagonal (in parentheses); All correlations significant at  $p < 0.001$  two-tailed; <sup>a</sup>For sample B, we were not given permission to measure the % of use members do with their co-op. We thus used a proxy, namely the number of shares people retain in the co-op. For sample A, patronage refers to the share of wallet in services terms, while for sample C, to the share of wallet in product terms.

Finally, we controlled for age, gender, length of membership, patronage, and participation in committees, all of which were likely to be associated with the intention to (dis)continue co-op membership as well as to refer the co-op to others. Age and length of membership were self-reported in years. Patronage was also self-reported but varied across samples (see Table 4b.1 notes). Gender and participation in committees were dummy-coded (i.e., male = "0", female =

“1”; no participation = “0”, participation = “1”). The means, standard deviations, and correlations appear in Table 4b.1. All constructs and measurement items can be found in Table A3 in the Appendix.

## Results

We performed structural equation modelling (SEM) analyses, using AMOS 23. We first conducted a CFA to provide support for the construct validity of our scale measures. We tested the degree of fit of the five-factor measurement model with the same fit indices as in Study 1. All fit measures adhered to recommended benchmarks ( $\chi^2[220] = 404.8, p < 0.01, \chi^2/df = 1.84$  for sample A;  $\chi^2[220] = 435.9, p < 0.01, \chi^2/df = 1.98$  for sample B;  $\chi^2[220] = 389.1, p < 0.01, \chi^2/df = 1.76$  for sample C; and ranges of CFI = 0.93 - 0.97, NNFI = 0.92 - 0.96, RMSEA = 0.06 - 0.08, SRMR = 0.04 - 0.06). All factor loadings were significant ( $p < 0.001$ ; see Table A3 in the Appendix) and AVEs for all constructs were greater than 0.50, in support of convergent validity. Discriminant validity was also established, as  $\sqrt{\text{AVE}}$  was greater than the correlation between any constructs. Scale composite reliabilities ranged from 0.78 to 0.98 and scale alpha reliabilities from 0.75 to 0.97 (see Table 4b.1).

We then examined if common method variance was inherent in the dataset. Of course, the temporal separation we applied was already a first step in dealing with common method bias. Moreover, we implemented the procedural remedies of Step 6 in Chapter 4a (e.g., psychological separation, spatial separation, anonymity assurance). However, we still performed an empirical check utilizing the bi-factor procedure (Chen et al., 2006; Podsakoff et al., 2003; Williams et al., 1989). According to the latter, an unmeasured general method factor is added to a t-traits factor (latent constructs) model and is compared to a model with just the t-traits factor specification. Our analyses showed that while the method factor did improve model fit in all three samples ( $\Delta\chi^2[21] = 49.23, \Delta\chi^2[21] = 99.03, \Delta\chi^2[21] = 75.75, p < 0.05$  respectively), it accounted for only a

small portion of variance (i.e., 4.39%, 7.39%, and 7.86%), which was much lower than the 25% suggested by Williams et al. (1989). Moreover, the trait factor loadings were significant and almost intact after the method effects were partialled out. These results were fully indicative that common method variance was not an inhibiting element in testing the hypotheses.

Next, we estimated the structural model (see Table 4b.2). The control variables were included by adding direct paths from them to each of the two dependent variables. Only patronage exhibited a somewhat strong influence on WI for samples A and C ( $\beta = -0.37, p < 0.001$ ,  $\beta = -0.15, p < 0.05$  respectively) and on WOM for sample A ( $\beta = 0.18, p < 0.01$ ). This should not be surprising as member discontent is routinely associated with lower co-op patronage rates (Bhuyan, 2007). For sample B, we could only use a proxy (see Table 4b.1 notes) to measure patronage, which might explain why it had no influence.

Based on the model estimates, ostracism had a strong effect on both outcomes across the three samples (WI:  $\beta = 0.37$  [A],  $\beta = 0.39$  [B],  $\beta = 0.51$  [C], all  $ps < 0.001$ ; WOM:  $\beta = -0.33$  [A],  $\beta = -0.29$  [B],  $\beta = -0.37$  [C], all  $ps < 0.001$ ), offering full support to H1. Furthermore, in support of H2, ostracism's influence remained strong, despite the robust effect of trust on both WI ( $\beta = -0.59$  [A],  $\beta = -0.42$  [B],  $\beta = -0.39$  [C], all  $ps < 0.001$ ) and WOM ( $\beta = 0.67$  [A],  $\beta = 0.45$  [B],  $\beta = 0.37$  [C], all  $ps < 0.001$ ). Ostracism had an effect on trust too, albeit weaker. Interestingly, social undermining had a strong negative relationship with trust, but its direct effects on both outcomes were all insignificant (see Table II). Mediation paths were constructed using the bootstrapped confidence interval procedure, whereby the 95% bias-corrected confidence intervals (CI) of the indirect effects were obtained with 5,000 bootstrapped resamples (Cullen et al., 2012; Hayes, 2009). The indirect effects of ostracism-trust-WI (or WOM), as well as these of social undermining-trust-WI (or WOM), were all significant across the

three samples (i.e., the 95% CI did not contain zero). Consequently, trust partially mediated the influence of ostracism and fully that of social undermining.

**Table 4b.2** - Parameter estimates and significance levels

	Sample A		Sample B		Sample C	
	Std. $\beta$	p	Std. $\beta$	p	Std. $\beta$	p
<b>Control variable paths</b>						
Gender $\rightarrow$ WI	0.08	(ns)	0.06	(ns)	0.07	(ns)
Age $\rightarrow$ WI	-0.04	(ns)	0.08	(ns)	-0.09	(ns)
Length of membership $\rightarrow$ WI	-0.11	(ns)	-0.08	(ns)	-0.03	(ns)
Patronage $\rightarrow$ WI	-0.37	***	-0.03	(ns)	-0.15	*
Committee participation $\rightarrow$ WI	-0.01	(ns)	-0.01	(ns)	0.02	(ns)
Gender $\rightarrow$ WOM	-0.06	(ns)	-0.02	(ns)	0.04	(ns)
Age $\rightarrow$ WOM	-0.05	(ns)	0.01	(ns)	-0.11	(ns)
Length of membership $\rightarrow$ WOM	0.13	(ns)	0.05	(ns)	0.09	(ns)
Patronage $\rightarrow$ WOM	0.18	**	0.07	(ns)	0.01	(ns)
Committee participation $\rightarrow$ WOM	-0.01	(ns)	0.06	(ns)	0.13	(ns)
<b>Hypothesized paths</b>						
Co-op ostracism $\rightarrow$ WI	0.37	***	0.39	***	0.51	***
Co-op ostracism $\rightarrow$ WOM	-0.33	***	-0.29	***	-0.37	***
Trust $\rightarrow$ WI	-0.59	***	-0.42	***	-0.39	***
Trust $\rightarrow$ WOM	0.67	***	0.45	***	0.37	**
<b>Other paths</b>						
Co-op ostracism $\rightarrow$ Trust	-0.16	*	-0.30	***	-0.26	**
Social undermining $\rightarrow$ Trust	-0.72	***	-0.53	***	-0.61	***
Social undermining $\rightarrow$ WI	0.02	(ns)	0.06	(ns)	0.06	(ns)
Social undermining $\rightarrow$ WOM	0.07	(ns)	-0.01	(ns)	-0.07	(ns)
R <sup>2</sup> WI	0.73		0.60		0.53	
R <sup>2</sup> WOM	0.60		0.45		0.42	

**Notes:** WI = withdrawal intentions; WOM = word of mouth; \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ , ns = nonsignificant.

To substantiate that ostracism provides added value beyond trust, we considered the additional variance explained in WI and WOM when we added it to a structural model that included trust and the control variables. We found that the trust-only model explained 60.2% (sample A), 44.6% (sample B), and 37.8% (sample C) of variance in WI, and 50.2%, 34.3%, 35.2% in WOM. Adding ostracism to this model increased the variance explained to 71.2%, 56.3%, 50.5% in WI, and 58.6%, 40.6%, 40.7% in WOM, respectively. Additionally, chi-square

difference tests indicated that, in all cases, the fit for the enriched model was significantly better than the fit for the trust-only model ( $\Delta\chi^2[133] = 202.19$  and  $\Delta\chi^2[133] = 227.44$ ,  $p < 0.05$  for sample A;  $\Delta\chi^2[133] = 280.53$  and  $\Delta\chi^2[133] = 307.07$ ,  $p < 0.05$  for sample B; and  $\Delta\chi^2[133] = 233.52$  and  $\Delta\chi^2[133] = 212.1$ ,  $p < 0.05$  for sample C). We, therefore, concluded that ostracism's influence on relational outcomes was genuine.

Overall, Study 1 findings indicate that ostracism consistently “poisons” crucial relational outcomes. It acts as a relationship-destroying element notwithstanding the rock-solid effects of the relationship-building factor of trust. Trust typically serves to reduce behavioral uncertainties in exchange relationships, but ostracism and its inherent ambiguity seem to add a different kind of uncertainty that is not easy to match. In other words, the relationship poison of ostracism does not seem to be really “absorbed” by trust, which instead appears to captivate unambiguous social mistreatment effects like these of social undermining.

## **STUDY 2: AN “ANTIDOTE” TO THE OSTRACISM POISON**

After showcasing ostracism's distinct nature and added value on critical co-op elements, we attempted to develop a mechanism for coping with ostracism. Understanding how to cope with ostracism is vital because effective coping strategies may trim or even exterminate the effects of ostracism on individuals (Williams and Nida, 2011; Wu et al., 2012). In the search for successful coping responses, scholars have explored several practices, like financial compensation (Lelieveld et al., 2012), turning to religion (Aydin et al., 2010), and subsequent social inclusion efforts (Tang and Richardson, 2013). Also, personal characteristics have been examined, such as the moderating effect of just-world beliefs (Poon and Chen, 2014), political skill and proactive personality (Zhao et al., 2013), and identity fusion (Gómez et al., 2011). In contrast to extant research which has taken an individual-self perspective, we rather focused on

how to neutralize the impact of ostracism on member withdrawal intentions from a group perspective. We followed a social perception approach and placed emphasis on the joint protective benefits of perceived groupness and the shared perspective of social capital, represented by the concepts of “entitativity” and “cognitive capital” respectively.

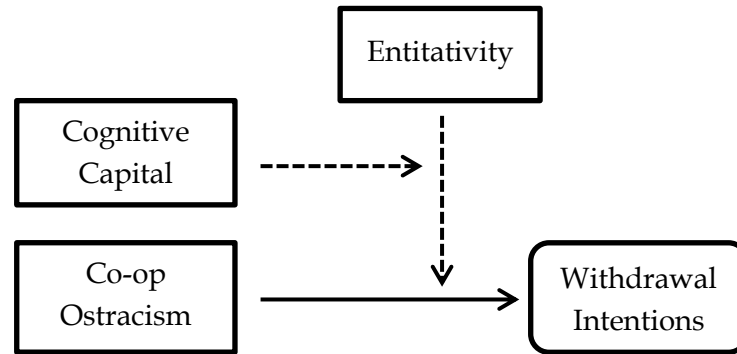
Social perception varies from the individual level, in which persons serve as the perceptual unit and are treated as distinct agents, to the group level, in which social groups serve as the perceptual unit and individual members are considered undifferentiated and interchangeable (Gaertner et al., 2008). Campbell (1958) coined the term “entitativity” to convey that aggregates of persons vary in the extent to which they are perceived as a cohesive whole or entity. Family members, for instance, might be perceived more entity- or group-like than a project team. When an aggregate of persons is seen as an entity, its members are expected to behave more consistently and may be considered more similar to one another (Vock et al., 2013). Perceived entitativity promotes the integration of group representations (Gaertner et al., 2008), enhances judgments of collective responsibility (Lickel et al., 2003), and, notably, promotes favorable attitudes and actions toward a group when that is in-group (Gaertner et al., 2006). Co-op members voluntarily join their co-op association. Hence, the latter can be perceived as an entity-like in-group. In turn, members can be expected to hold favorable associations towards the co-op when perceived entitativity is salient. Therefore, if the “groupness” of a co-op group is solid when members are glued in a coherent unit, ostracism’s influence on relational outcomes might wane.

The cognitive dimension of social capital is symbolic of shared goals, values and vision between exchange actors in a social system (Tsai and Ghoshal, 1998). It facilitates the development of common understandings and collective ideologies, outlining norms for parties to coordinate their exchange, and

comprehend the synergistic potential of the relationship. This, in turn, enables the alignment of interests and the attainment of collective outcomes (Villena et al., 2011). In a related vein, cognitive capital in co-ops probably serves to increase the level of understanding among co-op actors (e.g., members, employees, managers) and stimulate a “self-interest collectively expressed” (Birchall, 2011). Besides, successful co-ops unite their membership into a common purpose (Birchall 2011; Fulton, 1999; Nilsson, 2001).

Several characteristics influence individuals’ perceptions of entitativity, such as interpersonal similarity, interpersonal bonds, sharing a common fate (e.g., collective goals) and collective movement (Campbell, 1958; Gaertner et al., 2006). In a co-op, members cannot develop strong interpersonal bonds with many others. They share a common fate with each other to a great extent, however, as they pursue common goals on top of individual interests while they often have a similar philosophy or a shared vision (i.e., this implying high cognitive capital). In fact, co-ops are a form of collective movement. Hence, we expect cognitive capital to fuel entitativity and their joint effect to reinforce the “groupness” of a co-op group. In that respect, cognitive capital might provide the mutual lens (e.g., shared goals, philosophy, vision) through which a co-op group is viewed as an entity-like one by its member-customers, eventually deflecting threats from neglecting acts that distance them from their co-op. Moreover, entitativity typically shifts the attention from the self to the group, from the single to the common. Coupling cognitive capital with entitativity could probably divert members’ attention even further from the self to the group, from individual to mutual interest. This could serve as a mindful-based intervention that buffers the influence of ostracism on WI, “condensing” the distance between co-op participants while actively promoting the common sense of purpose. We hypothesize:

**H3:** Cognitive capital moderates the moderating effect of entitativity on the relationship between co-op ostracism and withdrawal intentions. High entitativity coupled with high cognitive capital leads to the weakest relationship while low entitativity combined with low cognitive capital results in the strongest relationship.



**Figure 4b.2** - Conceptual framework of a co-op ostracism coping strategy

## Methodology

We sampled member-customers from a South-eastern European agribusiness supply co-op. Data were collected using procedures identical to Study 1. A total of 225 responses were generated, yet 205 were usable. Of the participating members, 65% were male, the mean age was 39.5 years ( $SD = 11.5$ ), the mean membership tenure was 6.9 years ( $SD = 5.05$ ), 19.5% participated in at least one committee, and the mean patronage was 82.6% ( $SD = 17.12$ ). As a result, the sample was consistent with the demographic characteristics of Study 1.

We once again adapted existing reflective measures (see Table A3 in the Appendix). We also controlled for customer-company identification (CCI). It represents a connection between a customer's sense of self and an organization (Homburg et al., 2009) and can be a rival account of entitativity. However, it primarily focuses on the self, providing little information about the relationships among other group members, and is thus conceptually different from



entitativity. To measure it, we used four items from Homburg et al.'s (2009) CCI scale.

## Results

To check the convergent and discriminant validity among all constructs (including CCI), we run a CFA with maximum likelihood estimation. The five-factor model provided an acceptable fit ( $\chi^2[199] = 489.5$ ,  $\chi^2/df = 2.46$ , CFI = 0.92, NNFI = 0.91, SRMR = 0.045, RMSEA = 0.08). In support of convergent validity, all factor loadings were significant ( $p < 0.001$ ). We also conducted Fornell and Larcker's (1981) test for discriminant validity. According to Table 4b.3 - which also provides the means, standard deviations, scale reliabilities and correlations for the study variables - the square root of the AVE for each construct was larger than the correlation between the respective constructs. This means that the distinction of the constructs was evident. Moreover, all of the constructs were associated in the direction expected.

**Table 4b.3** - Means, standard deviations, correlations, and discriminant validity assessment

Constructs	M	SD	AVE	SCR	SAR	1	2	3	4	5	6	7	8
1 Age	39.47	11.49	-	-	-	-							
2 LoM	6.90	5.05	-	-	-	0.56**	-						
3 Patronage	82.59	17.12	-	-	-	-0.09	-0.05	-					
4 CCI	5.04	1.20	0.60	0.85	0.85	-0.13	-0.09	0.11	<b>0.77</b>				
5 Co-Os	3.07	1.46	0.67	0.95	0.94	0.06	0.09	-0.02	-0.54**	<b>0.82</b>			
6 Ent	4.83	1.53	0.73	0.89	0.89	-0.08	0.03	0.04	0.60**	-0.52**	<b>0.85</b>		
7 CogCa	5.03	1.30	0.65	0.85	0.84	-0.10	-0.08	0.11	0.46**	-0.47**	0.58**	<b>0.81</b>	
8 WI	2.84	1.24	0.64	0.84	0.83	0.05	0.11	-0.20**	-0.58**	0.58**	-0.56**	-0.64**	<b>0.80</b>

**Notes:** LoM = length of membership; CCI = customer-company identification; Co-Os = co-op ostracism; Ent = entitativity; CogCa = cognitive capital; WI = withdrawal intentions; AVE = average variance extracted; SCR = scale composite reliability; SAR = scale alpha reliability; Square root of the AVE along the diagonal - \* $p < 0.01$ , \*\* $p < 0.001$ .

Following Cohen et al. (2003), we conducted a five-step hierarchical multiple regression analysis to test our hypothesis. We first entered the control

variables, followed by co-op ostracism in the second step. In the third step, we entered entitativity and cognitive capital. We next introduced the three two-way interaction terms. Finally, we entered the three-way interaction term in the fifth step for predicting WI. Before the analysis, all continuous measures were mean-centered to reduce any multicollinearity. Table 4b.4 presents the regression results.

**Table 4b.4** - Hierarchical regression analysis predicting withdrawal intentions

Variables	Withdrawal intentions as dependent variable (standardized $\beta$ )				
	Step 1	Step 2	Step 3	Step 4	Step 5
<b>Control variables</b>					
Gender	0.01	0.02	0.01	0.01	0.01
Age	-0.10	-0.08	-0.10	-0.10	-0.11*
LoM	0.11	0.08	0.10	0.08	0.08
ComPar	0.01	0.04	0.04	0.03	0.03
Patronage	-0.14*	-0.16**	-0.14**	-0.12**	-0.10*
CCI	-0.56**	-0.35**	-0.20**	-0.10	-0.09
<b>Independent variables</b>					
Co-os		0.38**	0.24**	0.22**	0.29**
Ent			-0.12	-0.14*	-0.18*
CogCa			-0.35**	-0.46**	-0.49**
<b>Two-way interactions</b>					
Co-Os x Ent				-0.17**	-0.14*
Co-Os x CogCa				0.05	-0.01
Ent x CogCa				-0.20**	-0.14*
<b>Three-way interaction</b>					
Co-Os x Ent x CogCa					-0.19**
R <sup>2</sup>	0.36	0.46	0.58	0.61	0.63
$\Delta R^2$	0.36	0.10	0.12	0.04	0.02
F	18.48**	24.03**	29.49**	25.49**	25.05**
$\Delta F$	18.48**	37.09**	26.68**	6.29**	8.23**

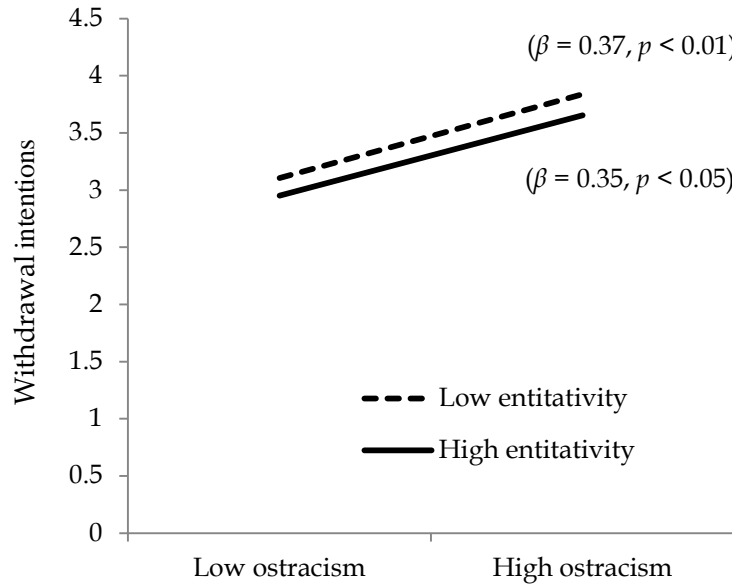
**Notes:** LoM = length of membership; ComPar = committee participation; CCI = customer-company identification; Co-Os = co-op ostracism; Ent = entitativity; CogCa = cognitive capital;  $\beta$  values are standardized coefficients - \* $p < 0.05$ , \*\* $p < 0.01$ .

As Step 5 of Table 4b.4 shows, co-op ostracism was significantly and positively associated with WI ( $\beta = 0.29$ ,  $p < 0.01$ ), while both entitativity ( $\beta = -0.18$ ,  $p < 0.05$ ) and cognitive capital ( $\beta = -0.49$ ,  $p < 0.01$ ) were negatively related.

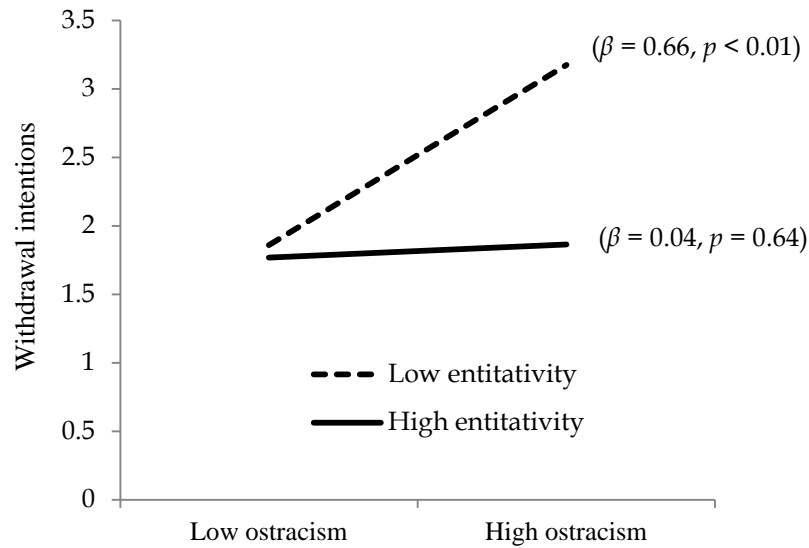
Their interaction effect was also negatively associated with WI ( $\beta = -0.14, p < 0.05$ ), implying that their coupling led to a lower propensity to leave the co-op. As far as ostracism's interaction effects were concerned, only the interaction with entitativity was significant ( $\beta = -0.14, p < 0.05$ ), suggesting that the latter toppled the effect of ostracism on the intention to terminate the relationship. Finally, of the control variables, similar to our previous studies, patronage had a negative significant effect ( $\beta = -0.10, p < 0.05$ ), followed by age who had a similar effect ( $\beta = -0.11, p < 0.05$ ). Our hypothesis predicted that entitativity and cognitive capital would jointly moderate the ostracism-WI relationship. The three-way interaction term proved to be significantly and negatively related to WI ( $\beta = -0.19, p < 0.01$ ), offering initial support to our hypothesis. As a cross-check, and as a means to explore the interaction, we employed a bootstrapping method (Hayes, 2013; 10,000 bootstrapped resamples; SPSS Macro PROCESS model 3), which also accommodates the investigation of three-way interactions. The results indicated that the three-way interaction effect was significant at the 99% level (CI = [-0.28, -0.015]). This provided further support for our hypothesis. Moreover, when inspecting the conditional effects (CE) of ostracism on WI at values plus and minus one standard deviation from the means of entitativity and cognitive capital, we could detect the nature of the three-way interaction. The only insignificant conditional effect ( $\beta_{CE} = -0.04, p = 0.69$ ) was found for the highest levels of entitativity and cognitive capital. In other words, the weakest effect of ostracism was found at the peak of the entitativity-cognitive capital combination.

To further examine the nature of the significant three-way interaction, we performed a spotlight analysis by plotting values plus and minus one standard deviation from the means of ostracism, entitativity and cognitive capital (Cohen et al., 2003). Figures 4b.3a and 4b.3b clearly illustrated that only when both entitativity and cognitive capital were high, was co-op ostracism unrelated to WI ( $\beta = 0.04, p = 0.64$ ). However, when both were low, co-op ostracism did not exhibit the strongest positive relation to WI (i.e.,  $\beta = 0.37, p < 0.01$  vs.  $\beta = 0.66, p <$

0.01 for the low entitativity-high cognitive capital combination). Taken together, these findings suggested that our hypothesis was partially supported, but our effort to discover an effective “antidote” to co-op ostracism’s virulent effect was rather fruitful.



**Figure 4b.3a** - Spotlight analysis / Low cognitive capital



**Figure 4b.3b** - Spotlight analysis / High cognitive capital

## GENERAL DISCUSSION

### Discussion and Implications

We built our co-op ostracism framework within a nomological network by specifying and testing consequent effects, and examining its influence on exchange outcomes next to a dominant relationship-building factor (i.e., trust) and a rival account (i.e., social undermining). We obtained strong support, across three studies, for our prediction that co-op ostracism has a discrete impact, largely on what maintains and extends co-ops' member-customer base. The empirical evidence we present contributes to the relational perspective on marketing through a more multifaceted view of relational exchanges, because it concentrates on understanding and measuring an *implicit* relationship-destroying factor in a business form which possesses an *a priori* relational advantage. Our research helps capture a more complete picture of the factors influencing marketing relationships, providing scholars with a reason to further investigate and explain the firm's social environment. Marketing researchers and managers should not disregard that businesses, particularly the co-op ones, are a social construction, which humans have created to get specific problems solved and address both individual and social needs (Freathy and Hare, 2004). Hence, inclusive membership should top the co-op leadership agenda (Davis, 2016), particularly if co-ops wish to maintain their unique way of doing ethical and principles-based business (Foreman and Whetten, 2002; Mellor, 2009; Novkovic, 2008).

Of no less interest is our finding on buffering withdrawal intentions associated with ostracism perceptions. The goal of our research was not only to show the potential usefulness of identifying co-op ostracism but also to provide a means to offset the phenomenon's effects. Co-ops are essentially business groups whose member-customers share properties (e.g., interdependence, common goals) characterizing high entitativity groups (Vock et al., 2013). As our results

show, coupling entitativity with high cognitive capital reinforces the sense of community and mutuality among co-op member-customers and neutralizes the particular ostracism effect on intentions to discontinue the relationship. This finding has important implications for how co-ops (or other firms) might fend off ostracism threats, offering a novel avenue for intervention strategies. For example, companies can channel communication efforts on sharing their vision, goals, and philosophy with their customers, but also further invest in organizing active customer communities, injecting them with shared purposes and understanding. The financial services co-op which participated in our studies launched a communication campaign in which it even used a “lens” metaphor. It stressed that when its member-customers “look through the lens of shared goals and vision, they can clearly see their mutual fate of success as well as their difference from the isolated customers of conventional banks”. Admittedly, this campaign boosted a vital capital stock increase undertaken shortly after.

Furthermore, as businesses engage in RM efforts, our research provides a note of caution regarding customer treatment and responses. Managers may be quick to address noticeable social mistreatment acts, like social undermining behavior (e.g., employee-customer disputes), given their visibility and apparent harm, but they may be less likely to acknowledge or address ostracizing conduct. Given ostracism’s link to core customer dispositions, companies should take it at least as seriously as other, more evident acts of mistreatment. Similarly, RM literature needs to pay more attention to the overlooked, yet indispensable role of implicit mistreatment forms in customer harm-doing. We have shown how core customers are driven away by simply not directing desired behavior towards them. In a CRM context, for instance, differential customer treatment might fuel customer negligence perceptions and backlash. We are thus confident that our inquiry will prove valuable to shed light on the role of such relationship-poisoning and morally undeserving (non-)behaviors in customer-firm relationships.

Our findings might further the understanding of membership, not only in co-ops but in general. Companies increasingly attempt to infuse elements of membership in their RM arrangements (e.g., loyalty program membership) or their core business (e.g., membership associations) (Vincent and Webster, 2013). Membership needs to involve social benefits beyond the offer of monetary or in-kind rewards, so as to create the sense that customers are in a pleasurable long-lasting relationship rather than a recurring, yet passing, transaction.

### **Limitations and Future Research Suggestions**

Although our work makes some important contributions, our two studies in this Chapter involve methodological limitations. First, while we were careful to test our framework in different industries and use different samples, there is a need to gather further evidence of generalizability in order to guarantee the accuracy of our findings. Moreover, we relied upon single-source self-reports, which often produce data that may be biased by methodological artifacts (MacKenzie and Podsakoff, 2012). We took several precautionary steps and implemented plenty of the procedural and statistical remedies suggested by Podsakoff et al. (2003) and MacKenzie and Podsakoff (2012) to free our measure of such biases and diminish the likelihood that our data were plagued by systematic measurement error. Nevertheless, we cannot rule out that common method and/or social desirability biases may have exerted some influence.

The concept of co-op ostracism needs further empirical research. We do not know all the consequences, especially the long-term ones, and further research could examine whether it can predict specific behavioral outcomes (e.g., actual member exit). Longitudinal studies could be designed that would allow exploring these, and other issues (e.g., coping mechanisms). On the basis of our theorizing and empirical evidence, we would expect targets to engage in negative behaviors, but we cannot rule out positive behavioral reactions (e.g., prosocial), as ostracism has also been shown to induce positive responses under

certain conditions (Xu et al., 2017). Moreover, as customer-to-customer involvement and interactions continue to increase, perhaps new measures will be necessary to explain how customers themselves can impact evaluations of the social aspects of marketing relationships.

In general, we encourage RM research that will draw from ostracism literature. To date, relatively little attention has been given to ostracism as a distinct and important social behavior in marketing, let alone in an RM context. We hope the findings from the set of our studies will give the phenomenon of ostracism the attention it deserves. The detection of ostracism and the empirical substantiation of its relationship-poisoning effects provide a crucial step in better explaining cues that may impact customer perceptions of social exchange, but a great deal of work in better understanding a firm's social environment remains to be carried out.





# CHAPTER 5

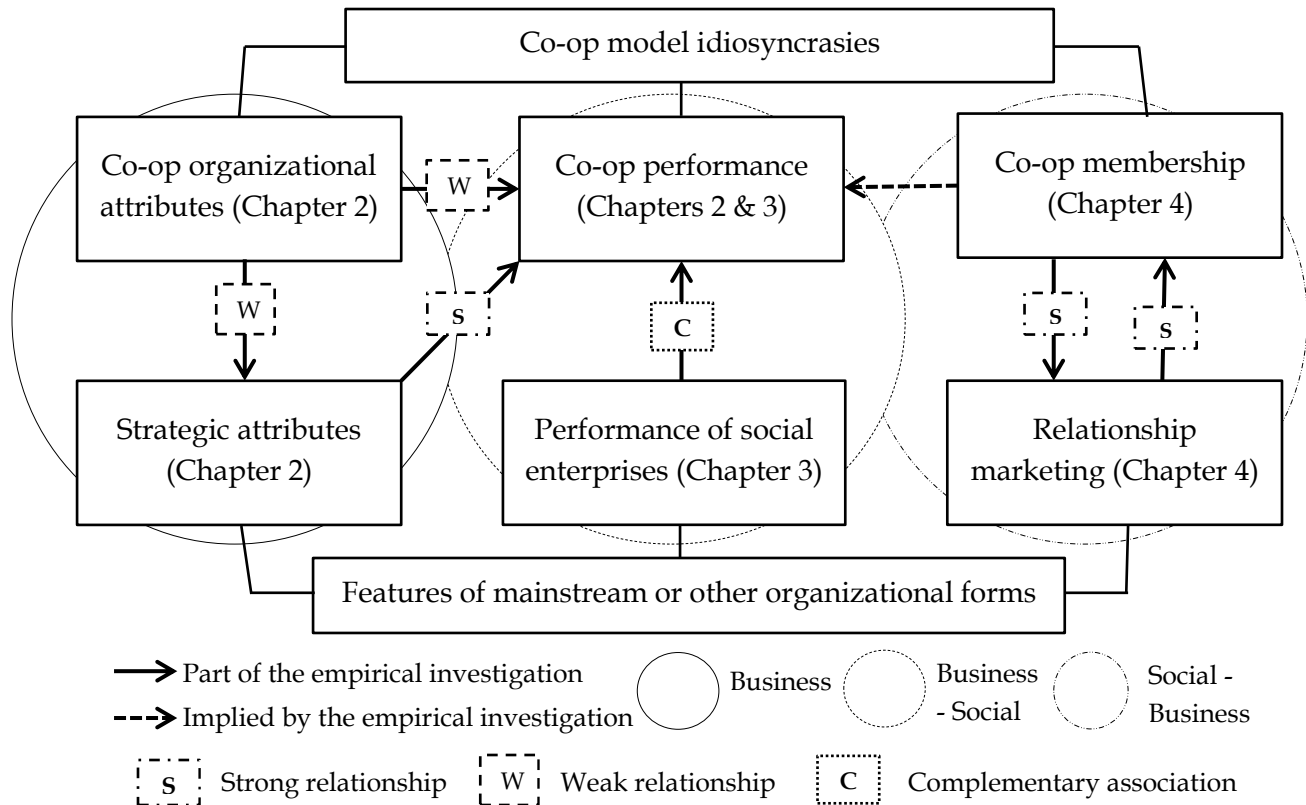
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## General Discussion

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## SUMMARY OF MAJOR FINDINGS, CONTRIBUTIONS, AND IMPLICATIONS

The central goal of this dissertation is to illuminate co-op idiosyncrasies that condition co-op viability, but also to counter them with business features ingrained in conventional or other forms of enterprise. In the previous four Chapters, we presented four empirical essays that revolve around co-op idiosyncrasies. In this Chapter, we summarize the major findings of each essay and discuss how they address the central goal. We also discuss what contributions they bring to research and what practical implications they provide. Figure 5.1 summarizes the main relationships on the basis of the general dissertation framework presented in Chapter 1.



**Figure 5.1** - Dissertation framework with main relationships

In Chapter 2, we explore the influence of co-op organizational attributes on co-op performance but also on mainstream strategic attributes (i.e., market and brand orientation) that have been shown in marketing and management literature to influence business performance substantially. We thus examine their influence on co-op performance too. Stirred by a policy change, we first develop an empirically grounded classification, organized into “traditional” versus “restructured” attribute elements, positing that adopting restructured attribute elements may have a positive effect on market orientation and co-op performance. In two empirical studies, we find a robust positive relationship between strategic attributes and performance as opposed to a weak relationship between organizational attributes and all the rest. In fact, only a few restructured organizational attributes, like binding delivery agreements and differentiated pricing, have a positive influence on market orientation, and even fewer have a (weak) impact on performance. Our results also show that co-ops need time to adopt restructured organizational elements after a policy reform. It turns out that they favor elements relating to member commitment as well as the delegation of decision-making responsibility to professionals. Interestingly, some co-ops even re-adopt traditional organizational characteristics over time.

Our findings advance co-op literature, extending previous work (e.g., Beverland, 2007; Bijman and Iliopoulos, 2014; Chaddad and Cook, 2004; Kyriakopoulos et al., 2004) on the relationships between policies, internal organization, strategies, and the performance of co-ops. The core finding that strategic attributes have a greater impact on performance than organizational attributes enhances our understanding of co-op performance determinants and at the same time confirms advances in marketing management literature (e.g., Kumar et al., 2011; Pelham, 2000; Urde et al., 2013). It is also in line with past analytical and descriptive co-op studies, which emphasize the importance of customer-focused strategies for agribusiness co-ops (e.g., Borgen, 2011; Hardesty, 2005; Meulenbergh, 2000; Salavou and Sergaki 2013). Our findings on the

organizational elements which appear to influence market orientation add to co-op literature by shedding new light on the concrete ownership and benefit arrangements that reinforce member commitment and, thereby, help co-ops to continue pursuing aggressive marketing strategies. Finally, the findings of Chapter 2 might provide some useful guidance for co-op leaders and policymakers. Co-op leaders need to embrace customer-focused strategies like market and brand orientation, and center on organizational restructuring that secures member commitment. In the light of the delayed adoption of restructured characteristics and the re-adoption of traditional ones, policymakers are compelled to consider whether and to what extent organizational changes in co-ops drive, or are driven by legal reforms.

In Chapter 3, we address a limitation identified in Chapter 2 and concentrate on co-op performance measurement. We first develop a preliminary framework for co-op performance assessment, in which we detail five sub-categories and document their advantages and shortcomings. The first three (i.e., BFA, BEA, and SBA) address more of the business nature of co-ops and take the organization as a unit of analysis, while the other two (i.e., OMA and SMA) address the social-membership perspective and take the member(s) as a unit of analysis. Then in three phases, we attempt to deliver a performance dashboard that could be comprehensive and at the same time consistent with the dual nature of co-ops. We consolidate empirical research on co-op performance metrics and validate the preliminary framework (phase 1), empirically test and refine it with input from global co-op experts (phase 2), and complement it with a review of the literature on the performance of social enterprises (phase 3), an organizational form that also straddles business with social components and faces similar business-social challenges.

Phase 1 findings suggest that, despite the dominance of two business sub-categories (i.e., BFA and BEA) in empirical co-op performance research, the

social-membership perspective, typified by OMA and SMA, is receiving growing attention. Moreover, phase 1 findings reveal that hardly any efforts are made to empirically assess the co-op impact beyond co-op boundaries (e.g., benefits to the community). In contrast, phase 3 findings demonstrate that not only the social aspect takes center stage in the scholarly work on the performance of social enterprises, but also societal implications beyond the beneficiaries' frontiers are accounted for or at least considered. Phase 2 results narrow down the assessment components into a three sub-category dashboard, consisting of BFA, SMA, and OMA. Consistent with the dual nature of the unique co-op organizational form, the BFA component represents the business standpoint with the SMA constituent signifying the social-membership viewpoint. The OMA addition solidifies both components, exemplifying in observable terms what members receive but also what they partly contribute to keeping their co-op enterprise in business.

Chapter 3 contributes to co-op literature by delivering a comprehensive dashboard for co-op performance assessment which mirrors the co-op organizational form idiosyncrasies and harmonizes business-social aspects. It supplements past systematic reviews on co-op performance (e.g., Marcis et al., 2018; Sexton and Iskow, 1993; Soboh et al., 2009; Van Herck, 2014) and advances the debate on how to best appraise it. Moreover, the interdisciplinary results of phase 3 reinforce and broaden the social perspective in co-ops, while extending the interdisciplinary dialogues put forward by Borgaza et al. (2011) (i.e., co-ops and social enterprises) and Valentinov and Iliopoulos (2013) (i.e., co-ops and non-profit organizations). Furthermore, sustainability research may benefit from the performance assessment analysis provided in Chapter 3, as co-ops are probably the organizational form most suited to contribute to sustainable development.

Actually, Chapter 3 helps co-ops to quantify their socio-economic impact consistently and, thereby, render their contribution to sustainable development

more visible. The suggested dashboard serves as a “currency matrix” (a “form for a medium of knowledge exchange”), enabling researchers or practitioners to pick the “exact units” (metrics) which generate “global values” (scores) that ultimately empower them to “trade” (exchange) their findings in the knowledge “marketplace”. Hence, we anticipate that it will be useful for future scientific comparisons and practical internal assessments or external reporting. Researchers and practitioners that utilize the “currency matrix” and add social impact elements past the co-op “universe” will be in a better position to capture co-op performance comprehensively and fortify the viability of the co-op model.

In Chapters 4a and 4b, we elaborate on the social-membership perspective emphasized in Chapter 3 and delve into co-ops’ social environment. We accept that co-op success (hence co-op performance) is connected to co-op membership and the inherent relational advantage of proximity to members (Byrne et al., 2015; Mazzarol et al., 2014; Mellor, 2009). In both chapters, we adopt a member-customer perspective and concentrate on a membership-related co-op threat (i.e., ostracism), which is grounded in social behavior and jeopardizes the relational advantage. In Chapter 4a, we provide a conceptual analysis of co-op (member-customer) ostracism and develop a diagnostic tool. In Chapter 4b, we assess co-op ostracism’s impact on important membership and relational exchange outcomes but also develop a coping strategy. To better understand the social character of co-op membership and to substantiate the deleterious effects of co-op ostracism we draw from and simultaneously inform relationship marketing knowledge rooted in marketing literature (e.g., Aurier and N’Goala, 2010; Morgan and Hunt, 1994; Vincent and Webster, 2013).

In Chapter 4a, we begin with a conceptual analysis of co-op ostracism and develop a definition. Then, in the absence of a validated self-report instrument and to better capture perceptions of ostracism experiences in co-ops, we develop a diagnostic tool, following a thorough seven-step process based on established

procedures (e.g., Howard and Melloy, 2016; Netemeyer et al., 2003; Nunnally and Bernstein, 1994) and customer research studies (e.g., Devlin et al., 2014; Shams et al., 2015). We trace ostracism's toxic presence in different co-ops and provide evidence for the diagnostic tool's underlying factor structure, convergent, discriminant, and nomological validity, as well as for its general stability. In Chapter 4b, across three different co-op samples and domains (i.e., agribusiness, retail banking, consumer), we find strong evidence for co-op ostracism's distinct influence on two critical relational exchange outcomes. That is, despite the presence of other relationship-building (i.e., trust) or relationship-destroying accounts (i.e., social undermining), co-op ostracism increases withdrawal intentions and lowers word-of-mouth, acting as a "relationship poison" for both member-customers and the co-op. However, in a separate follow-up study, we develop an "antidote" to ostracism's deleterious effect. We posit and empirically confirm that coupling entitativity with high cognitive capital reinforces the sense of community and mutuality among co-op member-customers and neutralizes the particular ostracism effect on intentions to discontinue the relationship.

Chapter 4a findings contribute to co-op literature by providing a platform for future investigations into how a core threat to co-ops' inherent relational advantage can be diagnosed and evaluated. Moreover, the development of the diagnostic tool paves the way for greater conceptual and empirical rigor in understanding the co-op model from a member-customer perspective and intensifying research on the exploration of co-ops' social environment. Chapter 4b results supplement the findings of Chapter 4a and contribute further to co-op literature. They extend co-op ostracism's nomological network by showcasing its discrete impact largely on what maintains and extends co-ops' member-customer base, despite the influence of a dominant relationship-building factor (i.e., trust) or a rival account (i.e., social undermining). Chapter 4b findings also advance relationship marketing knowledge. They offer a fresh outlook on key



relationship marketing elements like customer membership and profound insight into an implicit relationship-destroying factor in a business form which possesses an a priori relational advantage with member-customers. In this sense, Chapter 4b extends recent scholarly work on relationship marketing's implicit harmful effects (Nguyen, 2012; Payne and Frow, 2017), illuminating a dark side of a relationally profuse customer context.

Chapter 4a and 4b outcomes will hopefully prove valuable to co-op managers, predominantly if they wish to shield vital relational assets like member loyalty. Co-op decision-makers might use the diagnostic tool developed in Chapter 4a to detect ostracism and combat it. Similarly, they might use Chapter 4b's coping strategy to offset the ostracism's effects. Moreover, our findings might be of interest to managers of other organizational forms. As companies increasingly attempt to infuse elements of membership in their relationship marketing programs (e.g., loyalty schemes, user communities) or even their core business (e.g., membership-based enterprises) (Vincent and Webster, 2013), both chapters enrich the understanding of membership, not only in co-ops but in general. It seems that membership needs to involve social benefits, as managers should not disregard that businesses - particularly the co-op ones - are still a social construction, which humans have created to address both individual and social needs. Likewise, our findings have particular importance if managers desire to create and grow customer communities. Specifically, knowing how to tackle ostracism effects or how to promote mutuality could likely enhance the willingness of customers to help each other and also be involved in more communities connected to a company or its products. Our chapters provide building blocks based on which managers may deject customer disconnection and foster the sense of mutuality.

## RESEARCH CHALLENGES

Specific research suggestions have been discussed in each chapter. In this section, we recap some of these suggestions and point out some general directions for future research in the area of co-op idiosyncrasies that condition co-op viability.

From the outset of this dissertation, we repeatedly noted that co-ops are businesses known to center on social aspects (Birchall, 2011; Forker et al., 2014; Mellor, 2009), constituting the only member-based organizational form that consistently aims to strike a socio-economic balance (Foreman and Whetten, 2002; Levi and Davis, 2008; Novkovic, 2008; ICA, 2015). Still, they have to be business-like and meet financial and commercial goals on top of their social ends (Spear et al., 2009). Business emphasis habitually tempers their social character (Puusa et al., 2013), often resulting in governance changes (e.g., reduced member involvement) (Bijman et al., 2014), social capital drain (Nilsson et al., 2012), or even a crisis in membership commitment (Davis, 2016). In other words, even though co-ops are well-placed to blend business with social features, they are also increasingly faced with business-social tensions (e.g., pragmatic business concerns vs. idealistic social concerns). We delved into both aspects throughout this dissertation and reflected upon co-ops' capacity and propensity to attend to often opposing business and social demands. However, as our purpose was not to document how business-social tensions manifest, we believe that a fruitful avenue for future research is to analyze their different types, their connected challenges, and the nature of organizational responses to these challenges. In fact, future studies could empirically explore and systematically analyze co-op specific business-social tensions as well as the implications these tensions have for managerial initiatives.

Similarly, future research may progress on the issue of member preference heterogeneity, which is particularly problematic for co-op ownership and

governance (Cook, 1995; Kalogeras et al., 2009), and poses severe challenges for co-op competitiveness (Iliopoulos and Valentinov, 2017). In line with the business-social tensions that emerge from, among others, divergent outcomes, identities, internal dynamics, and time horizons (Ashforth and Reingen, 2014; Smith et al., 2013), member preference heterogeneity is linked to divergent member interests, incentives and background characteristics (Hansmann, 1996; Iliopoulos, 2014; Kalogeras et al., 2009). In Chapter 2, we touched upon the issue of heterogeneity in member preferences, while in Chapter 3 we added that co-ops would progressively have to balance the diverse concerns of the varied stakeholders when measuring their performance. However, it was beyond the scope of this dissertation to zoom into heterogeneity aspects. Despite the recent dedicated studies (e.g., Iliopoulos and Valentinov, 2017; 2018; Kalogeras et al., 2009) or the voluminous scholarly work on the organizational constraints that aggravate member preference heterogeneity (e.g., Bijman et al., 2013; Chaddad and Iliopoulos, 2013; Cook and Iliopoulos, 2000; Vitaliano, 1983), the dearth of theoretical and empirical research on the issue is noteworthy. As heterogeneity makes it increasingly challenging for co-op leaders to identify and pursue a balanced business strategy, let alone to keep all members satisfied, we hope that future studies will increase our understanding and offer practical solutions.

Finally, we hope that the interdisciplinary dialogue between co-ops and social enterprises in Chapter 3 as well as the cross-fertilization with the marketing literature in Chapters 2, 4a, and 4b will spur more knowledge exchange in co-op literature and other disciplines. Co-ops as a research context and their idiosyncrasies as a research paradigm deserve a better spot in future marketing research, for example. As we have pointed out throughout this dissertation, co-ops are rarely treated in business disciplines (e.g., marketing, management), despite their global business-social impact, their growing awareness among policymakers, and the renewed interest in specialized (co-op)

literature. Consequently, we anticipate that, henceforth, they will not be “ostracized” by marketing scholars, at least.

### **A FINAL THOUGHT**

The central goal of this dissertation was to illuminate co-op idiosyncrasies that condition co-op viability, but also to counter them with business features ingrained in conventional or other forms of enterprise. We built on rich settings, collection procedures, data, and analysis methods, and shed light on three co-op idiosyncrasies, namely the influence of idiomorphic co-op organizational attributes on co-op performance, the measurement of co-op performance, and the impact of a core threat to co-ops’ core element (the membership). We also encountered them with mainstream business features or features from other organizational forms, like market orientation, performance of social enterprises, and relationship marketing outcomes, respectively. We hope that our efforts and the findings of our essays will represent an important step forward in fortifying the co-op model. Regardless, the general takeaway from this endeavor is that the scientific study of co-op idiosyncrasies promises many exciting implications for co-ops or other organizational forms as well as new avenues of research in co-op literature and beyond. In our view, co-ops will remain the “enfants terribles” of economics, irrespective of the possible setbacks or the inherent tensions. Besides, even if alienated from mainstream business research, they will perpetually connect with people from all walks of life. As the cover page implies, no matter how much hardship they go through, co-ops will flourish and shine forever.



# APPENDIX

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Tables for Chapter 3 and Chapter 4b

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**Table A1** - Overview of empirical studies on the performance of co-ops

Authors	Sample profile	Sector(s)	Sub-category	Performance metrics
Babb and Boynton (1981)	1979, USA, 28 co-ops vs. 20 IOFs	Dairy	BFA / BEA / OMA	Profitability, debt, and efficiency ratios / cost minimization / prices paid, scope and quality of services to farmers (e.g., field services, information provision)
Chen et al. (1985)	1975-1980, USA, 32 co-ops vs. 35 IOFs	Dairy, fruit & vegetables, grain, fats & oils	BFA	Asset and sales growth, profitability and debt ratios
Schrader et al. (1985)	1979-1983, USA, unspecified number of co-ops	Dairy, grain, farm supply	BFA	Profitability, debt, and efficiency ratios
Porter and Scully (1987)	1972, USA, 28 co-ops vs. 28 IOFs	Dairy	BEA	Technical, scale, and allocative efficiency
Chapman and Christy (1989)	1979-1987, USA, 10 co-ops vs. 8 IOFs	Sugar	BEA	Cost efficiency
Sexton et al. (1989)	1980-1985, USA, 22 co-ops	Cotton	BEA	Allocative efficiency
Venieris (1989)	1981-1983, Greece, unspecified number of co-ops	Wine	BFA	Profitability, debt, and liquidity ratios
Lerman and Parliament (1990)	1976-1987, USA, 18 co-ops vs. 18 to 160 IOFs (across sectors)	Dairy, fruit & vegetables	BFA	Profitability, debt, liquidity, and efficiency ratios
Parliament et al. (1990)	1971-1987, USA, 9 co-ops vs. 75 to 160 IOFs	Dairy	BFA	Profitability, debt, liquidity, and efficiency ratios
Lerman and Parliament (1991)	1970-1987, USA, 43 co-ops	Grain, dairy, food, farm supply	BFA	Profitability, debt, liquidity, and efficiency ratios
Royer (1991)	1987, USA, 2028 co-ops vs. unspecified number of IOFs	Cotton, dairy, grain, fruit & vegetables, livestock, farm supply, sugar, multiproduct	BFA	Liquidity and debt ratios
Akridge and Hertel (1992)	1980-1990, USA, 76 co-ops vs. 46 IOFs	Grain, farm supply	BEA	Cost efficiency
Schroeder (1992)	1979-1988, USA, 29 co-ops	Grain, farm supply	BEA	Scale and scope elasticities
Barton et al. (1993)	1985-1989, USA, 114 co-ops	Grain, farm supply	BFA	Profitability, liquidity, and efficiency ratios
Caputo and Lynch (1993)	1980-1985, USA, 22 co-ops	Cotton	BEA	Technical efficiency
Fulton and King (1993)	1988-1989, USA, 19 co-ops	Grain	BEA	Marketing margin per unit of capacity
Hind (1994)	1992, UK, unspecified number of co-ops vs. IOFs	Various agricultural sectors (not specified)	BFA	Profitability, debt, and liquidity ratios

Rogers and Petraglia (1994)	1982, USA, 100 co-ops	Various agricultural sectors (not specified)	BFA	Lerner index, advertising-to-sales ratio, capital-output ratio, market shares, sales growth
Featherstone and Rahman (1996)	1979-1988, USA, 20 co-ops	Farm supply, marketing (not specified)	BEA	Allocative efficiency
Harris and Fulton (1996)	1986-1993, Canada, 94 co-ops (across sectors) vs. 77 IOFs (across sectors)	Dairy, grain, oilseeds, fruit & vegetables, feed, fishing, retail grocery	BFA	Liquidity, profitability, efficiency, debt, and growth ratios
Mauget and Declerck (1996)	1990-1991, several European countries, 33 co-ops	Dairy, grain, meat, farm supply	BFA	Profitability and efficiency ratios
Moller et al. (1996)	1987-1992, USA, 718 co-ops	Grain, farm supply	BFA	Profitability and debt ratios
Bergman (1997)	1995, 6 EU countries & USA, unspecified number of co-ops	Dairy, grain, meat, fruit & vegetables	BFA	Market shares
Gentzoglanis (1997)	1986-1991, Canada, 6 co-ops vs. 6 IOFs	Dairy	BFA	Liquidity, debt, and profitability ratios
Trechter et al. (1997)	1993-1994, USA, 5 co-ops	Grain, farm supply	BFA	Profitability ratio (i.e., return on assets)
Ling and Liebrand (1998)	1986-1996, USA, 25 co-ops vs. 15 IOFs	Dairy	BFA	Profitability ratio (i.e., return on equity), extra value index (EVI)
Oustapassidis et al. (1998)	1990-1994, Greece, 5 co-ops vs. 25 IOFs	Dairy	BFA	Profitability, debt, liquidity, and efficiency ratios, growth rates
Sueyoshi et al. (1998)	1988, Japan, 38 co-ops	Various agricultural sectors (not specified)	BEA	Technical, scale, and allocative efficiency, production index, comparative cost index and reduction ratio
Worthington (1998) [184]	1995, Australia, 63 credit unions	Retail banking	BEA / BFA	Technical efficiency / profitability ratios
Brown et al. (1999)	1992-1995, Australia, 94 to 72 credit unions	Retail banking	BEA	Technical efficiency
Fukuyama et al. (1999)	1992-1996, Japan, 393 to 355 credit co-ops	Retail banking	BEA	Technical, scale, and allocative efficiency
Gorton and Schmid (1999)	1987-1990, Austria, 73 co-op banks	Retail banking	BFA	Profitability ratio (i.e., return on assets)
Worthington (1999)	1995, Australia, 233 credit unions	Retail banking	BEA	Technical and scale efficiency
Ariyaratne et al. (2000)	1988-1992, USA, 89 co-ops	Grain, farm supply	BEA / BFA	Technical, allocative, and scale efficiency / Herfindahl index, profitability, liquidity, debt, and efficiency ratios
Doucouliafos and Hone (2000)	1969-1996, Australia, 2 co-ops and unspecified number of IOFs	Dairy	BEA	Technical efficiency, total factor productivity
Escho (2001)	1985-1993, Australia, 106 credit unions	Retail banking	BEA / BFA	Cost efficiency / profitability and liquidity ratios
Singh et al. (2001)	1992-1997, India, 13 co-ops vs. 10 IOFs	Dairy	BEA	Technical, allocative, and cost efficiency



Baourakis et al. (2002)	1993-1998, Greece, 10 co-ops vs. 17 IOFs	Fruit juice, olive oil	BFA	Profitability, liquidity, debt, and efficiency ratios
McKillop et al. (2002)	1996, UK, 104 credit unions	Retail banking	BEA / BFA	Cost and scale efficiency / loan, liquidity, and bad-debt ratios, asset growth
Mosheim (2002)	1988-1993, Costa Rica, 28 co-ops vs. 16 IOFs	Coffee	BEA	Technical, allocative, scale, and cost efficiency
Ananiadis et al. (2003)	1990-1998, Greece, 5 co-ops vs. 26 IOFs	Dairy	BFA	Profitability, debt, and liquidity ratios
Arcas and Ruiz (2003)	Undisclosed data collection period, Spain, 43 co-ops	Fruit & vegetables	BFA	Profitability and efficiency ratios
Kenkel et al. (2003)	1990-2001, USA, 22 co-ops	Grain, cotton, farm supply	BFA	Profitability, liquidity, debt, and efficiency ratios, sales growth
Richards and Manfredo (2003)	1980-1998, USA, unspecified number of co-ops	Dairy, fruit & vegetables, poultry, sugar grain, cotton, farm supply	BFA	Profitability, liquidity, debt, and efficiency ratios, sales growth
Barton (2004)	1996-2003, USA, 8 co-ops	Grain, dairy, vegetables, beef, poultry, farm supply	BFA	Profitability, debt, and liquidity ratios
Brester and Boland (2004)	1996-2000, USA, 1 co-op	Sugar	BFA	Profitability
Boyle (2004)	1961-1987, Ireland, unspecified number of co-ops	Dairy	BEA	Technical and allocative efficiency
Hardesty and Salgia (2004)	1991-2002, USA, 41 co-ops (across sectors) vs. 20 to 1024 IOFs (across sectors)	Dairy, grain, fruit & vegetables, farm supply	BFA	Profitability, liquidity, debt, and efficiency ratios
Kyriakopoulos et al. (2004)	1999, the Netherlands, 29 marketing, 16 supply, and 7 multipurpose co-ops	Various agricultural sectors, farm supply	SBA	CEO's view on performance (i.e., 5-point multi-item scale, focus on the co-op as a firm, not the members' activities)
Mishra et al. (2004)	1998, USA, 1385 co-op members vs. 1501 IOF suppliers	Grain, fruit & vegetables, tree nuts, nursery, beef, hog, poultry, dairy, other crops, farm supply	OMA	Farm profitability ratios (i.e., net farm income plus interest payments to total assets, labor and management income), farm leverage ratio
Chaddad et al. (2005)	1991-2000, USA, 876 co-ops	Grain, farm supply, multi-purpose	BFA	Profitability, liquidity, debt, and efficiency ratios
Desrochers and Fischer (2005)	1996-2002, 17 countries, 17,000 co-ops	Financial services	BEA / BFA	X-efficiency / profitability and liquidity ratios

Ebneth and Theuvsen (2005)	2001-2004, 9 European countries, 11 co-ops	Dairy	BFA	Profitability, debt, and efficiency ratios, degree of internationalization (i.e., foreign sales to total sales ratio)
Hailu et al. (2005)	1984-2001, Canada, 54 co-ops	Fruit & vegetables	BEA	Cost efficiency
Bond (2005)	2003-2005, USA, 21 co-ops	Farm supply, other (unspecified)	BFA	Debt, liquidity, and efficiency ratios
Piesse et al. (2005)	1986-1988 & 1996-1998, South Africa, 16 co-ops	Grain	BEA	Technical and allocative efficiency
Galdeano-Gómez et al. (2006)	1994-2002, Spain, 51 co-ops	Fruit & vegetables	BEA / other	Total factor productivity / environmental performance (i.e., members' waste production above the accepted levels, the co-op's expenditure on implementation of certified environmental systems)
Ling (2006)	1992-1996 & 2000-2004, USA, 21 co-ops	Dairy	BFA	Profitability ratio (i.e., return on equity), extra value index (EVI)
Sergaki and Semos (2006)	1995-2000, Greece, 93 co-ops vs. 3281 IOFs	Various agricultural sectors	BFA	Profitability, debt, and efficiency ratios, market shares, export intensity (i.e., export to total sales ratio)
Barros and Santos (2007)	1996-2000, Portugal, 7 co-ops vs. 20 IOFs	Wine	BEA	Technical efficiency
Bhuyan (2007)	2000, USA, 73 members from 20 co-ops	Fruit & vegetables	SMA / OMA	Overall dissatisfaction, dissatisfaction with price, management and relations, members' influence in decision-making, withdrawal intentions, membership-related beliefs (e.g., marketing agreement, motives for joining) / side-selling
Boyd et al. (2007)	1994-2003, USA, 648 co-ops	Grain, farm supply	BFA	Profitability, liquidity, debt, and efficiency ratios
Hailu et al. (2007)	1984-2001, Canada, 96 co-ops	Grain, dairy, fruit & vegetables	BEA / BFA	Cost efficiency / profitability and debt ratios
Notta and Vlachvei (2007)	1990-2001, Greece, 5 co-ops vs. 34 IOFs	Dairy	BFA	Profitability, debt, and efficiency ratios, market shares
Guzmán and Arcas (2008)	2001-2003, Spain, 46 to 108 co-ops	Fruit & vegetables	BEA / BFA	Technical and scale efficiency / efficiency ratios
McKee (2008)	2002-2006, USA, 120 co-ops	Grain, farm supply	BFA	Profitability, liquidity, debt, and efficiency ratios
Bond (2009)	2003-2005, USA, 44 co-ops	Dairy, fruit, farm supply, other (not specified)	BFA	Liquidity, debt, and efficiency ratios

Chibanda et al. (2009)	2007, South Africa, 10 co-ops	Vegetables, poultry, beef, bread	OMA	Price paid (or fair net surplus), reliance on government funds, training of members, marketing arrangements, governance arrangements (e.g., fair elections & secret ballots, audited accounts, information provision)
Guzmán et al. (2009)	2001-2005, Italy and Spain, 187 (81 + 106) co-ops	Fruit & vegetables	BEA	Technical and scale efficiency
Magdaleno and García-García (2009)	2004, Spain, 16 co-ops vs. 102 IOFs	Various agricultural sectors	BEA	Technical efficiency
McKee et al. (2009)	2003-2007, USA, 58 co-ops	Grain, farm supply	BFA	Profitability, liquidity, and debt ratios
Glass et al. (2010)	2006, Ireland, 388 credit unions	Retail banking	BEA / BFA	Economic efficiency / debt, liquidity, and loan ratio, asset growth
Maietta and Sena (2010)	1996-2001, Italy, 63 co-ops vs. 40 IOFs	Wine	BEA / BFA	Technical efficiency / debt ratio
Arcas et al. (2011)	Undisclosed data collection period, Spain, 108 co-ops	Fruit & vegetables	BEA	Technical efficiency
Candemir et al. (2011)	2004-2008, Turkey, 37 co-ops	Hazelnuts	BEA	Technical efficiency
Heyder et al. (2011)	2005-2009, various European countries, 21 (14 + 7) co-ops	Dairy, meat	BFA	Profitability ratios, degree of internationalization (i.e., foreign sales to total sales ratio)
Soboh et al. (2011)	1996-2004, Germany, Belgium, the Netherlands, France, Ireland, 46 co-ops vs. 124 IOFs	Dairy	BFA	Profitability, debt, liquidity, and efficiency ratios
Basterretxea and Martínez (2012)	2006, Spain, 44 co-ops vs. 817 IOFs	Industrial sector	SBA	Key informant's (e.g., CEO, sales manager, operations manager) view on current and future performance (i.e., 5-point multi-item scale on profitability, sales growth and trade margins)
Costa et al. (2012)	2008, Italy, 13938 co-ops	Various sectors	BFA	Profitability, efficiency, and debt ratios
McKee and Larsen (2012)	2002-2008, USA, 82 co-ops	Grain, farm supply	BFA	Profitability and debt ratios
Ory and Lemzeri (2012)	1995-2007 & 2007-2010, France and other European countries (unspecified), 4 co-ops vs. 30 PLCs	Retail banking	BFA	Profitability, debt, and efficiency ratios
Patlolla et al. (2012)	1992-2007, India, 341 co-ops vs. 206 IOFs vs. 46 public factories	Sugar	BEA	Technical efficiency
Rosairo et al. (2012)	2008, Sri Lanka, 6 co-ops	Vegetables, rice, grain, pulses, farm supply	OMA / BFA	Governance arrangements (e.g., audited accounts, information provision) / liquidity and debt ratios

Ruben and Heras (2012)	Undisclosed data collection period, Ethiopia, 5 co-ops (100 members in each)	Coffee	OMA	Profits obtained by members, amount delivered
Soboh et al. (2012)	2004, Belgium, the Netherlands, Denmark, Ireland, France, Germany, 43 co-ops vs. 90 IOFs	Dairy	BEA	Technical, scale, and allocative efficiency
Bijman et al. (2013)	2006, the Netherlands, 33 co-ops	Dairy, fruit & vegetables, grain, meat, flowers, potato starch, farm supply, multipurpose	BFA	Profitability ratios, asset growth, sales growth
Cechin et al. (2013)	2011, Brazil, 55 co-op members vs. 42 IOF suppliers	Broiler	OMA / SMA	Production efficiency & quality / buyer-supplier relationship features (e.g., communication frequency, market risk reduction, adaptation support, behavioral uncertainty)
Dios-Palomares et al. (2013)	2005-2006, Spain, 40 co-ops vs. 48 IOFs	Olive oil	BEA / other	Technical and scale efficiency / proportion of permanent jobs
Franken and Cook (2013)	2005-2010, USA, 367 co-ops	Various agricultural sectors (unspecified), farm supply, multi-purpose	BFA / SBA	Profitability ratios / Board Chair's view on co-op health (i.e., 10-point multi-item scale consisting of items for member satisfaction, competitive position, profitability, ability to achieve vision, and overall performance)
Hanisch et al. (2013)	2000-2010, EU-27, unspecified number of co-ops	Dairy	OMA / BFA	Prices paid to members / market shares
Hernández-Espallardo et al. (2013)	2009, Spain, 321 co-op members	Fruit & vegetables	SMA	Overall satisfaction with the co-op (i.e., 5-point multi-item scale), price satisfaction (i.e., 5-point single item scale), intention to continue (i.e., 5-point multi-item scale)
Huang et al. (2013)	2009, China, 896 co-ops	Gain, fruit & vegetables, livestock, fish	BEA	Technical efficiency, scale efficiency
Kalogeras et al. (2013)	1999-2010, the Netherlands, 14 co-ops	Dairy, fruit & vegetables, grain, meat, flowers, potato starch, farm supply, multipurpose	BFA	Profitability, liquidity, and debt ratios
Moradi and Nematollahi (2013)	2006-2011, Iran, 120 co-ops	Agriculture, services, industrial, retail banking, other	BFA / other	Profitability and debt ratios / employment (i.e. number of employees)

Mujawamariya et al. (2013)	2006, Rwanda, 121 members of 4 co-ops	Coffee	OMA	Side-selling
O'Brien et al. (2013)	2012, Kenya and Uganda, 2,246 members of 4 co-ops	Dairy	SMA	Members' reporting of membership benefits and services (i.e., timely payment, convenient payment, general credit, training, purchase of excess quantities, priced paid, inputs provided, animal health services, credit & saving services)
Sharifi (2013)	2008-2012, India, 1 co-ops	Farm supply	BFA	Profitability, liquidity, debt, and efficiency ratios
Wheelock and Wilson (2013)	1989 & 2006, USA, unspecified number of credit unions	Retail banking	BEA	Cost and scale efficiency, cost productivity
Abate et al. (2014)	2008, Ethiopia, 564 co-op members vs. 1074 IOF suppliers	Grain	OMA	Technical efficiency at the farm level, access to capital
Arcas-Lario et al. (2014)	Uncertain data collection period, Spain, 277 co-op members	Fruit & vegetables	SMA	Overall satisfaction with the co-op (i.e., 11-point multi-item scale), intention to continue (i.e., 11-point 2-item scale)
Fiordelisi and Mare (2014)	1998-2009, Austria, France, Germany, Italy, Spain, 2529 co-op banks	Retail banking	BFA	Profitability ratios, Lerner index, Herfindahl index
Forker et al. (2014)	1996-2008, Northern Ireland, 188 credit unions	Retail banking	BFA / other	Asset growth, payout ratio (i.e., dividends and loan rebates to total assets) / community payments ratio (i.e., community expenditure to total assets)
Jardine et al. (2014)	1975-2001, USA, 1 co-op vs. 1 IOF	Fish	BEA	Price premium, quality improvement
Liebrand and Ling (2014)	1993-2012, USA, 1736 co-op members	Dairy	SMA	Overall satisfaction with co-op, satisfaction with pricing policies, with management and BoD, with co-op services, with information flow, and with management of operations, members' influence on internal decision-making, withdrawal intentions
Othman et al. (2014)	2011, Malaysia, 56 (second-order) co-ops	Various sectors	BEA	Technical efficiency
Yang and Chaddad (2014)	2005-2010, USA, 367 co-ops	Various agricultural sectors (unspecified), farm supply, multi-purpose	BFA / SBA	Profitability ratios / Board Chair's view on co-op health (i.e., 10-point multi-item scale consisting of items for member satisfaction, competitive position, profitability, ability to achieve vision, and overall performance)

Alho (2015)	2014, Finland, 682 co-op members	Dairy, meat, farm supply	SMA	Perceived membership benefits (i.e., 5-point single item scales relating to good services, price paid, non-pecuniary benefits, good bargaining position in the market, stable market channel)
Franken and Cook (2015)	2005-2010, USA, 367 co-ops	Various agricultural sectors (unspecified), farm supply, multi-purpose, service	BFA / SBA	Profitability ratios / Board Chair's view on member satisfaction, on competitive position, on profitability, on ability to achieve vision, and on overall performance (i.e., 10-point single item scales)
Jones and Kalmi (2015)	2001-2009, Finland, 202 co-op banks	Retail banking	BFA	Profitability and debt ratios
Li et al. (2015)	1992-1995, USA, 100 co-ops vs. 50 IOFs	Grain, farm supply	BFA	Profitability, efficiency, liquidity, and debt ratios
Melia-Marti and Martinez-Garcia (2015)	1995-2005, Spain, 147 co-ops	Various agricultural sectors	BFA	Profitability, liquidity, efficiency, and debt ratios
Mojo et al. (2015)	2014, Ethiopia, 139 members of 4 co-ops	Coffee	SMA / other	Satisfaction with membership (i.e., one 5-point item as part of a multi-item scale measuring other aspects as well, such as satisfaction with production) / environmental performance (i.e., 5-point multi-item scale on members' change in fertilizer use, soil erosion, soil fertility, crop diversity, herbicide use)
Wollni and Fischer (2015)	2004, Costa Rica, 180 members of four co-ops	Coffee	OMA	Side-selling
Benos et al. (2016)	2006 & 2010, Greece, 114 + 25 co-ops	Various agricultural sectors	SBA	CEO's view on organizational performance (i.e., 7-point multi-item scale)
Chagwiza et al. (2016)	2012, Ethiopia, 192 members of 5 co-ops vs. 192 non-members	Dairy	OMA	Proportion of specific agricultural income to total household income, output productivity
Costa and Carini (2016)	2008-2011, Italy, 7414 co-ops	Various sectors	BFA / other	Profitability, debt, and efficiency ratios / employment (i.e. number of employees)
Feng et al. (2016)	2007 & 2011, Sweden, 634 members of 3 co-ops (286 + 285 + 63)	Grain, farm supply	SMA	Satisfaction with membership aspects (i.e., 5-point multi-item scale), loyalty (i.e., 5-point single item scale)
Jones et al. (2016)	2001-2009, Finland, 202 co-op banks	Retail banking	BFA / OMA	Profitability ratio (i.e., return on assets) / membership growth rate, churn rate
Hammad et al. (2016)	2011, Malaysia, 72 co-ops	Various sectors	SBA	Board chair's view on financial performance (i.e., 5-point multi-item scale),
Mathuva (2016)	2008-2013, Kenya, 212 credit unions	Retail banking	BFA	Profitability, liquidity, and debt ratios
Mathuva et al. (2016)	2008-2013, Kenya, 212 credit unions	Retail banking	BFA	Profitability, liquidity, and debt ratios

McKee and Kagan (2016)	1995-2013, USA, unspecified number of credit unions vs. IOF banks	Retail banking	BEA / BFA	Cost efficiency / Profitability ratio, loan ratio (i.e., loan to assets ratio)
Valette et al. (2016)	2009-2015, France, 365 co-ops vs. 586 IOFs	Wine	BFA	Profitability and debt ratios, export intensity (i.e., export to total sales ratio)
Van Rijsbergen et al. (2016)	2009 & 2013, Kenya, 218 members of 3 co-ops	Coffee	SMA / OMA	Satisfaction with technical and trade assistance (i.e., 5-point single item scales) / side-selling
Wouterse and Francesconi (2016)	2013, Ethiopia, Malawi and Senegal, 253 (50 + 103 + 100) co-ops	Fruit & vegetables, dairy, grain, nuts, rice, soybean	OMA	Organizational health index (i.e., four binary indicators: engagement in collective marketing, membership growth, equity growth, and side selling)
Chareonwongsak (2017)	Undisclosed data collection period, Thailand, 319 co-ops	Various sectors	BFA	Profitability ratio (i.e. return on equity)
Ma and Abdulai (2017)	2013, China, 208 co-op members vs. 273 non-members	Apples	OMA	Farm profitability and income
Rebelo et al. (2017)	2003-2012, Portugal, 11 co-ops	Olive oil	BFA	Profitability, liquidity, and debt ratios
Sisay et al. (2017)	Undisclosed data collection period, Ethiopia, 24 co-ops	Seeds	SBA	External experts' view on financial performance (i.e., 5-point multi-item scale), member satisfaction (i.e., 5-point multi-item scale), members' livelihood (i.e., 5-point multi-item scale)
Sisay et al. (2017)	2016, Ethiopia, 190 members of 29 co-ops	Seeds	SMA / SBA	Co-op leaders' and members' view on financial performance (i.e., 5-point multi-item scale), member satisfaction (i.e., 5-point multi-item scale), and members' livelihood (i.e., 5-point multi-item scale) / customer satisfaction (i.e., 5-point multi-item scale)
Susanty et al. (2017)	2010, Indonesia, 170 members of 14 co-ops	Dairy	SMA	Price satisfaction (i.e., 5-point multi-item scale), loyalty (i.e., 5-point multi-item scale), perceived business performance (i.e., 5-point multi-item scale)
Tana et al. (2017)	2012, Brazil, 331 co-ops	Dairy	SBA	Perceived economic performance by key informants (i.e., 7-point multi-item scale)
Yamori et al. (2017)	2009-2014, Japan, 154 credit unions	Retail banking	BEA / BFA	Technical efficiency / debt ratios, loan ratio (i.e., loan to deposits)
Cadot and Ugaglia (2018)	2005-2011, France, 39 co-ops	Wine	OMA / BFA	Prices paid / debt ratios
Figueiredo and Franco (2018)	2016 & 2017, Portugal, 194 members of 3 co-ops	Wine	SMA	Overall satisfaction with the co-op (i.e., 5-point multi-item scale)



Grashuis (2018)	2014, USA, 1000 co-ops	Grain, farm supply, dairy, fruit & vegetables, cotton, livestock, sugar, other	BFA	Profitability, debt, and efficiency ratios, DuPont identity
Kontogeorgos et al. (2018)	2006-2010, Greece, 34 co-ops	Various agricultural sectors (unspecified)	BFA	Profitability, liquidity, and efficiency ratios
Martínez-Victoria et al. (2018)	2009-2012, Spain, 8,104 IOFs vs. 249 co-ops	Fruit & vegetables	BFA	Profitability, liquidity, and debt ratios
Martins and Lucato (2018)	2015, Brazil, 53 co-ops	Various agricultural sectors (unspecified)	BFA	Profitability, liquidity, and debt ratios
Co-operatives UK – Simply Performance Guid	Designed for UK co-ops, but applicable to all countries	Applicable to all sectors	BFA / OMA / SMA / other	Profitability, leverage, debt, and efficiency ratios, turnover change, profit distribution to members / membership churn, side-selling, hours of member training provided, participation rate at general assemblies, diversity of members (e.g., age, gender, ethnicity, education) / member and customer (non-member) satisfaction / employee satisfaction, loyalty, and training, amount invested in benefitting local communities, environmental impact (e.g., emission and waste reduction)
Gordon Nembhard and Hammond Ketilson	Applicable to all countries	Designed for credit unions but applicable to all sectors	OMA / Other	Service provision (e.g., quality, complains handling), membership growth / community involvement and economic development (e.g., donations, sponsorships, scholarships, volunteerism, local sourcing, waiving service fees, training), employee benefits (e.g., salaries, hiring practices), environmental impact (e.g., conservation policies)
Mellor - METRICS (OCDC)	Designed for developing countries	Designed for agricultural sectors	BFA / OMA	Profitability, capital structure (e.g., debt, reserves) / diversity of members and the BoD (age, gender), governance arrangements (e.g., BoD election, audited accounts, information provision), participation rate at general assemblies, training services to members



World Co-operative Monitor (ICA)	Applicable to all countries	Applicable to all sectors	BFA / OMA / other	Turnover, income data (only for financial co-ops), composition of total equity & liabilities (only for financial co-ops) / number of elected officers, participation rate at general assemblies, diversity of members and the BoD (age, gender) / number of employees and volunteers, amount granted for donations, scholarships and sponsorships
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**Table A2 - Overview of empirical studies on the performance of social enterprises**

<b>Authors</b>	<b>Sector(s)</b>	<b>Metrics</b>
Somers (2005)	Work integration, food & drinks, financial services, business support	A modified version of the Balanced Scorecard
Bull (2007)	Health & social care, education, food & drinks, environmental protection, ICT, employment, furniture, arts, business support	A modified version of the Balanced Scorecard
Rotheroe and Richards (2007)	Furniture	Social Return on Investment (SROI)
Meadows and Pike (2010)	Financial services	A modified version of the Balanced Scorecard
Bagnoli and Megali (2011)	Work integration and community services (e.g., social tourism, bulk waste, bike rental)	a. Financial statement analysis b. Social effectiveness – a variant of the “logic model” of assessment / impact value chain model (i.e., sustainability of inputs, outputs-activities, outcomes to intended beneficiaries, social and economic impacts on the wider community) c. Institutional legitimacy (institutional coherence, compliance with laws and secondary norms)
Millar and Hall (2013)	Health & social care	a. Social Return on Investment (SROI) b. Internal tools (not specified)
Arena et al. (2015)	Energy production & distribution	A variant of the “logic model” of assessment / impact value chain based on inputs, outputs, and outcomes, and exemplifying three dimensions: efficiency (output/input), effectiveness (output characteristics), and impact (long-term effects of the output on the target community)
Battilana et al. (2015)	Work integration	a. Economic productivity b. Social performance (i.e., number of beneficiaries who found a regular job after completing their term at the social enterprises)
Hall et al. (2015)	Various sectors	Social Return on Investment (SROI)
Liu et al. (2015)	Not specified	a. Key informant’s view on economic performance (i.e., 7- point multi-item scale for commercial marketing achievements and economic value creation) b. Key informant’s view on social performance (i.e., 7-point multi-item scale for social marketing achievements and social value creation)

Crucke and Decramer (2016)	Work care & integration, social workshops, local services	<p>a. Key informant's view on economic performance (i.e., 8-point multi-item scale)</p> <p>b. Key informant's view on environmental performance (i.e., 7-point multi-item scale and dichotomous items)</p> <p>c. Key informant's view on community performance (i.e., 7-point multi-item scale)</p> <p>d. Key informant's view on human performance (i.e., 7-point multi-item scale)</p> <p>e. Key informant's view on governance performance (i.e., 7-point multi-item scale and dichotomous items)</p>
Luke (2016)	Employment & training	Statement of social performance, consisting of a profit measure and a social contribution measure (i.e., inputs in terms of cash and in-kind contributions, and outputs in terms of realized benefits of the program)
Arogyaswamy (2017)	Solar lighting, water provision in drought-affected areas, healthcare, remote delivery, work integration	A time-based variant of the "logic model" of assessment / impact value chain model
Cordes (2017)	-	Cost-benefit analysis and Social Return on Investment (SROI)
Nicholls (2017)	-	Social Return on Investment (SROI)

**Table A3** - Measurement scales and items for Chapter 4b's Studies 1 and 2

Measure	Items	FL <sub>A</sub> <sup>1</sup>	FL <sub>B</sub> <sup>1</sup>	FL <sub>C</sub> <sup>1</sup>	FL <sup>2</sup>	Scale
Co-op ostracism <sup>1,2</sup>	<i>To what extent others at the co-op...</i>					7-point scale
	1. show no interest for you	0.94	0.80	0.82	0.77	(1= "not at all", 7 = "to a large extent")
	2. do not respond to you or your messages	0.91	0.80	0.93	0.80	
	3. avoid you	0.90	0.83	0.78	0.76	
	4. show little interest in your opinion	0.89	0.86	0.86	0.85	
	5. disregard your interests	0.94	0.88	0.79	0.85	
	6. ignore you	0.89	0.85	0.87	0.84	
	7. your voice is not heard	0.93	0.78	0.90	0.86	
	8. keep information from you	0.79	0.80	0.80	0.75	
	9. do not pay attention to you	0.94	0.84	0.87	0.80	
Social undermining <sup>1</sup> (Duffy et al., 2002)	<i>"Others at the co-op..."</i>					7-point scale
	1. belittle you or your ideas	0.79	0.92	0.73	-	(1= "not at all", 7 = "to a large extent")
	2. compete with you for status and recognition	0.88	0.91	0.85	-	
	3. criticize the way you handle things in a way that is not helpful	0.80	0.95	0.90	-	
	4. insult you	0.76	0.87	0.81	-	
Trust <sup>1</sup> (Morgan and Hunt, 1994)	<i>"Others at the co-op..."</i>					7-point scale
	1. can generally be trusted	0.79	0.86	0.75	-	(1 = "strongly disagree", 7 = "strongly agree")
	2. can be counted on to do what is right	0.58	0.67	0.51	-	
	3. have high integrity	0.69	0.78	0.62	-	
	4. can be relied on	0.78	0.76	0.76	-	
WOM <sup>1</sup> (Choi and Choi, 2014)	1. I usually say positive things about my co-op to other people	0.84	0.91	0.75	-	7-point scale (1 = "strongly disagree", 7 = "strongly agree")
	2. I tell other people to consider my co-op for membership	0.78	0.91	0.82	-	
	3. I recommend my co-op and its products/services to others	0.90	0.96	0.89	-	

Withdrawal intentions <sup>1,2</sup> (Jensen et al., 2013)	1. I often think of quitting my membership at the co-op	0.72	0.74	0.80	0.68	7-point scale (1 = “strongly disagree”, 7 = “strongly agree”)
	2. If that were possible, I would look for a better co-op	0.81	0.95	0.91	0.85	
	3. There isn’t much to be gained by staying in the co-op	0.79	0.92	0.88	0.86	
Entitativity <sup>2</sup> (Vock et al., 2013)	<i>“At my co-op, we...”</i>					7-point scale (1 = “strongly disagree”, 7 = “strongly agree”)
	1. form an entity	-	-	-	0.86	
	2. have a bond	-	-	-	0.85	
Cognitive capital <sup>2</sup> (Villena et al., 2011)	3. are a unity	-	-	-	0.85	7-point scale (1 = “strongly disagree”, 7 = “strongly agree”)
	1. share similar corporate culture/values	-	-	-	0.69	
	2. share similar philosophies/approaches to business dealings	-	-	-	0.87	
Customer-company identification <sup>2</sup> (Homburg et al., 2009)	3. have compatible goals and objectives	-	-	-	0.85	7-point scale (1 = “strongly disagree”, 7 = “strongly agree”)
	1. I strongly identify with this co-op	-	-	-	0.74	
	2. I feel good to be a member-customer of this co-op	-	-	-	0.79	
	3. I like to tell that I am a member-customer of this co-op	-	-	-	0.77	
	4. This co-op fits well to me	-	-	-	0.78	

**Notes:** Subscripts indicate the corresponding sample in Study 2 (A = sample A, B = sample B, and C = sample C); Superscripts indicate the study in which each measure was used (1 = Study 1, 2 = Study 2); FL = factor loading; All factor loadings were highly significant ( $p < 0.001$ ); The three potential sources of ostracism (i.e., employees, other members, members of the BoD) were given as examples for “others”.



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# SUMMARY

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## Summary

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## SUMMARY

The idiosyncratic member-owned, principles-driven, and people-centered business model of co-operatives (co-ops) has persistently been adept at combining a social mission with economic goals, creating superior value for its member-users and benefiting society at large. Currently, co-ops occupy a strong socio-economic position globally (e.g., three million co-ops with a billion members and 100 million employees), and are treated by policymakers as vehicles for sustainable development. Still, while academic studies and policy reports on co-op issues abound, some co-op idiosyncrasies remain obscured or under-researched. Firstly, few studies have examined the relationship between co-op organizational attributes and features of mainstream businesses (e.g., market-oriented strategies). Secondly, extant research has neglected to accurately address the idiosyncratic nature of co-ops when investigating their performance, typically adopting a single-objective angle (e.g., profit-maximization) and omitting the social-membership standpoint (e.g., member benefits). Thirdly, the social component of membership has attracted limited attention in general. These knowledge gaps persist because co-ops have been overlooked by research in mainstream business disciplines (e.g., management, marketing). In this dissertation, we aim to illuminate such co-op idiosyncrasies and confront them with business features ingrained in conventional or other organizational forms (e.g., social enterprises). In so doing, we advocate a dual outlook, deliberating upon co-ops' capacity and proclivity to attend to (often contradictory) business and social demands.

In Chapter 2, we aim to examine the influence of idiomorphic co-op organizational attributes on co-op performance and on mainstream strategic attributes (market and brand orientation), as well as the influence of the latter on co-op performance. Motivated by a policy change, we develop an empirically grounded classification of traditional versus restructured co-op organizational

attributes and argue that the restructured ones positively influence both market orientation and performance. We empirically test the attribute-performance relationships with agribusiness co-ops in two studies (Study 2 replicates Study 1 over time at a smaller scale). We exhibit that strategic attributes have a larger impact on performance than organizational attributes, although part of the latter (e.g., exit barriers, differentiated pricing) exert some influence on market orientation. We conclude that greater emphasis should be placed on customer-focused strategies like market and brand orientation, while reforms of organizational structure should be primarily geared toward stimulating member commitment in the long run.

In Chapter 3, we aim to deliver a comprehensive dashboard for co-op performance assessment that reflects co-op specificities, accounting for multiple performance objectives and harmonizing business–social aspects. We concentrate on the agricultural domain, but we consider all sectors, in three phases. In phase 1, we consolidate empirical research on co-op performance metrics and create a preliminary framework, in which we detail five sub-categories. In phase 2, we employ a Delphi study with co-op experts to test the framework. As a result, we narrow it down to a workable bundle of three sub-categories. The first sub-category (i.e., BFA – Business Financial Appraisal) reflects the business aspects; the second (i.e., SMA – Subjective Membership Appraisal) conveys the social-membership viewpoint; and the third (i.e., OMA – Objective Membership Appraisal) solidifies the first two. In phase 3, we review comparable research efforts for an organizational form (i.e., social enterprises) that also blends business with social components and faces similar business–social challenges. This inquiry prompts a reinforcement of the social perspective with social value measurement elements beyond the co-op boundaries. The dashboard we eventually deliver serves as a “currency matrix” (a “medium of knowledge exchange” or common benchmark) for future empirical studies.

In Chapter 4a, we aim to explore a core co-op threat (i.e., member-customer ostracism) relating to co-ops' social environment, and develop a diagnostic tool. We adopt a member-customer perspective, conceptualize co-op ostracism, and argue that it elicits negative outcomes, regardless of the source (e.g., members, employees). Following a meticulous seven-step process and using different types of co-ops, we develop a reliable and valid diagnostic tool. We also find that co-op ostracism is fairly common in co-op life, hurting member-customers and the co-op alike. In Chapter 4b, we aim to delve into the toxic effects of co-op ostracism. We adopt a relationship marketing perspective and develop a conceptual model to empirically assess its' influence on critical relational exchange and membership outcomes. Across three different co-op samples and domains (i.e., agribusiness, retail banking, consumer), we find support for our premise that co-op ostracism acts as a "relationship poison" for both member-customers and the co-op, despite the presence of other relationship-building (i.e., trust) or relationship-destroying accounts (i.e., social undermining). Still, we develop an "antidote" (a coping strategy) to buffer ostracism's deleterious effects and empirically test it in an extra study with co-op members. Indeed, we show that coupling entitativity with cognitive capital attenuates ostracism's impact.

Overall, this dissertation builds on rich settings, collection procedures, data, and analysis methods, and sheds light on co-op idiosyncrasies that, together with mainstream business features, shelter unique co-op assets and condition co-ops' sustainability. This dissertation will hopefully aid co-op leaders in making informed decisions about organizational and strategic attributes, documenting co-ops' socio-economic impact consistently, and fending off a core social threat to the central co-op element, the membership.



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## Acknowledgements

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# ABOUT THE AUTHOR

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## Curriculum Vitae

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## CURRICULUM VITAE

Theo Benos was born and raised in Kalamata, Greece. He studied European Economics (B.Sc.) at the Athens University of Economics and Business, Agribusiness Marketing & Management (M.Sc.) at Wageningen University & Research, and Marketing Research (Advanced M.Sc.) at Ghent University. After his studies, he did an internship at Unilever and a traineeship at the European Commission's Directorate-General for Agriculture & Rural Development. He also worked for two years as a Junior Lecturer at the Department of Marketing & Supply Chain Management at Maastricht University, where he obtained the University Teaching Qualification certificate (BKO - Basiskwalificatie Onderwijs).

Theo Benos is a freelance agribusiness & food marketing consultant, with experience in consulting & research projects for food companies. He is also a co-founder & co-manager of the Greek agribusiness portal [www.gyri.gr](http://www.gyri.gr) since 2012, while an external partner of the University of Crete and the CREA Institute in Rome (Research Centre for Agricultural Policies and Bio-economy in Italy). Moreover, Theo has expertise in Common Agricultural Policy (CAP) implementation projects, particularly in Greece, Cyprus, the Netherlands, Belgium, and Luxembourg, and has recently been part of the Technical Assistance team for the preparation of a CAP-related Regulatory Impact Assessment in Turkey.

As a researcher, he concentrates on co-operatives, food & agribusiness marketing, sustainability, and agricultural policy. He has published several articles at various scientific journals (e.g., "European Journal of Marketing", "Agribusiness", "Journal of Common Market Studies", "Sustainability") and has delivered numerous presentations at scientific conferences (e.g., "EAAE - European Association of Agricultural Economists", "ICA - International Co-operative Alliance"). Theo has been a scholar of the "Alexander S. Onassis Public Benefit Foundation" and the "State Scholarships Foundation (IKY)" of Greece. He is currently a member of the Commodity Risk Management Expertise Center (CORMEC) at Wageningen University & Research, and the Marketing-Finance Research Lab (MFRL) at Maastricht University.

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