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An integrative theoretical framework of strategic marketing solutions for resolving social dilemmas

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Abstract

Purpose – This study aims to examine how marketing can help resolve firm-level social dilemmas. The authors synthesize insights from sociology, psychology, economics, political science, management and marketing to conceptualize firm-level marketing social dilemmas, organize marketing solution levers into an integrative taxonomy and develop a testable framework with antecedents, marketing solutions, boundary conditions, consequences and propositions.

Design/methodology/approach – The authors conduct a systematic review to identify core social-dilemma constructs and diagnostic attributes (e.g. observability, externality dispersion/reversibility, coordination/free-rider risk, short–long payoff gap). Building on this base, the authors propose an integrative taxonomy of marketing solutions – communication and norm activation, regulation, group-structure and governance and strategic marketing – and illustrate generalizability with four cases: climate change, pandemic, data privacy and DEI. The authors then develop an integrative framework and associated propositions.

Findings – The authors offer a firm-level conceptualization of social dilemmas that links diagnostic dilemma attributes to matched marketing solution bundles and specifies boundary conditions that shape effectiveness. The framework explains how marketing efforts translate antecedents into firm-level outcomes, while positioning employee-, consumer- and society-level consequences as broader downstream implications of firms' efforts to resolve social dilemmas, yielding clear, mechanism-based propositions for explanation and prediction.

Research limitations/implications – Future research could expand on this research by empirically testing the proposed framework and exploring marketing solutions for resolving different social dilemmas.

Practical implications – This study offers actionable strategies for marketers and marketing to address social dilemmas, foster stakeholder relationships, enhance organizational outcomes and benefit society.

Social implications – Addressing firm-level social dilemmas through marketing activities fosters long-term societal benefits while enhancing firm performance.

Originality/value – This research advances the understanding of social dilemmas within the marketing domain through a novel framework and a taxonomy of marketing solutions that address firm-specific



challenges. By bridging gaps across disciplines, it contributes foundations for innovative marketing strategies that can resolve complex social dilemmas.

Keywords Social dilemmas, Marketing for society, Climate change (sustainability) social dilemma, Marketing strategy, Strategic marketing solutions, A taxonomy of marketing solutions for social dilemmas, Data privacy social dilemma, DEI social dilemma, Pandemic social dilemma

Paper type Conceptual paper

1. Introduction

All marketing entities – firms, consumers, marketers and social groups – confront social dilemmas: situations where individually rational, short-term choices conflict with longer-term collective welfare (Kollock, 1998; Shultz and Holbrook, 1999). These tensions have become central to the practice of marketing in facing different types of social dilemmas – e.g. climate change, pandemic, data privacy and diversity, equity and inclusion (DEI). Across these domains, marketing decisions shape how information is framed, how incentives are structured and how interactions among stakeholders are organized. However, although prior research has offered valuable insights into specific social and environmental domains and responses (e.g. Dickinson-Delaporte *et al.*, 2010; Katsikeas *et al.*, 2016; Nickerson *et al.*, 2022), it has not yet conceptualized firm-level social dilemmas or consolidated a framework that explains when different marketing levers are more or less effective in resolving different social dilemmas. As calls grow for research that advances marketing's contributions to society, there is a need for a coherent, firm-level account of how marketing can help resolve such dilemmas (Chandy *et al.*, 2021; Voegtlin *et al.*, 2018; Wittneben *et al.*, 2012).

While marketing's role in resolving social dilemmas is slowly gaining traction (e.g. Duffy *et al.*, 2017; Gleim *et al.*, 2013; Sen *et al.*, 2001; Wilkie *et al.*, 2024), there is little research that explores the conceptual foundations of social dilemma frameworks and their relevance for marketing theory and practice. Other disciplines – sociology, psychology, economics, political science and management – have devoted decades to developing and/or testing social dilemma concepts (e.g. Enke, 2019; McCarter *et al.*, 2011; Ostrom, 2012). Therefore, given that marketing entities and activities have tremendous potential to resolve social dilemmas (Chandy *et al.*, 2021), theorizing efforts on social dilemmas and the associated implications for marketing can help marketing scholars address such dilemmas and their negative impacts through marketing activities and strategies. A systematic review that synthesizes this fragmented knowledge base can clarify dynamics and, in turn, enable effective responses by marketing entities (firms, customers, marketers and social groups). More specifically, what remains underdeveloped in marketing is not just the ability and agility of firms in recognizing the importance and types of social trade-offs, but also the role of marketing mechanisms through which firms can influence cooperative versus noncooperative outcomes under different dilemma conditions (Maciel and Fischer, 2020; Shultz and Holbrook, 1999; Shultz and Nill, 2002). This omission is consequential because marketing decisions often determine whether collective interests become visible, cooperative behaviors become socially reinforced, defection becomes easier or harder and long-run collective gains can be made compatible with short-term and long-term objectives of firms.

Accordingly, this research develops a marketing-relevant conceptualization of social dilemmas at the firm level and translates it into actionable guidance. We synthesize knowledge across sociology, psychology, economics, political science, management and marketing to clarify diagnostic attributes that matter for marketing design – such as the observability of actions and outcomes, the dispersion and reversibility of externalities, coordination needs and free-rider risks and the gap between short-run and long-run payoffs. On these foundations, we organize solution levers that marketers can use into four families:

communication and norm activation, regulation, group-structure and governance and strategic marketing. We then integrate these elements into an applied, testable framework that specifies antecedents, boundary conditions, firm-level outcomes and broader downstream employee-, consumer- and societal-level implications, and we derive propositions that support explanation and prediction. In doing so, we shift the conversation from treating social dilemmas as broad societal challenges to treating them as diagnosable, firm-level design problems. This shift is important because it clarifies not only why dilemmas persist, but also what marketing can uniquely contribute beyond generic calls for responsibility, collaboration or stakeholder alignment. In other words, while this research adopts a positive perspective to explain why firm-level social dilemmas emerge and persist, it also uses a normative perspective to specify what marketing should do to diagnose and address them.

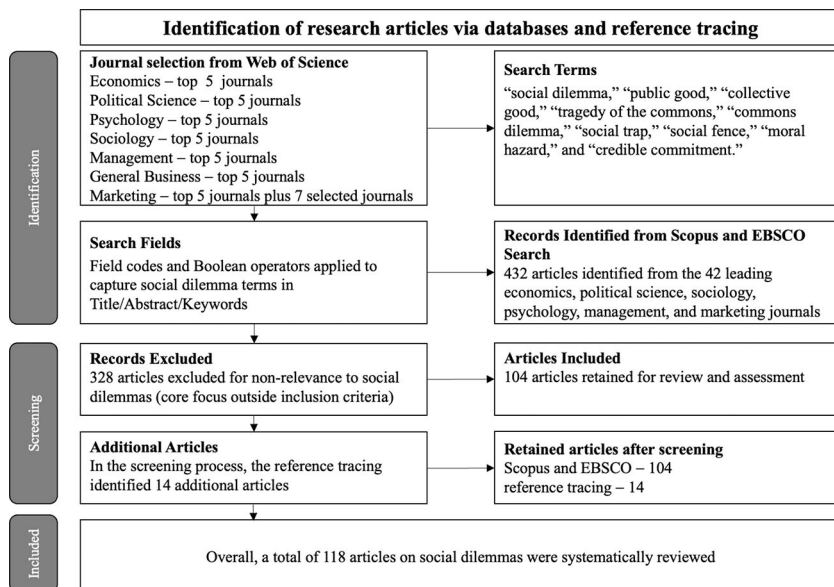
To ground the firm-level lens and demonstrate generalizability, we develop four parallel illustrative cases – climate change, pandemic, data privacy and DEI, each with a distinct scope and scale of effect on short- and long-term marketing activities. Climate change exemplifies dispersed, partly irreversible externalities and high coordination needs. Pandemic response highlights acute time horizons and interdependence in behavior changes. Data privacy centers on tensions between short-run targeting yield and the long-run value of trust in data ecosystems. DEI reflects resource-intensive investments whose collective benefits are delayed and distributed across teams, organizations and talent systems. Each case closes with a concise firm-level conceptualization that emphasizes short- versus long-term and self- versus group-interest tradeoffs, while also pointing to the diagnostic attributes that determine mechanism choice. Taken together, these cases are not intended as isolated applications, but as analytically parallel contexts that reveal how different combinations of dilemma attributes call for different marketing responses. This comparative logic helps position the framework as a generalizable marketing theory of social dilemma resolution rather than as a set of domain-specific observations (Hunt, 2014; Madhavaram, 2023, 2024).

This paper makes three contributions. First, it directs attention to a substantive domain – marketing solutions for resolving social dilemmas – that warrants focused theorizing in marketing (Yadav, 2010). Specifically, it identifies an underdeveloped theoretical space in marketing: firm-level mechanism design for resolving tensions between immediate self-interest and longer-term collective welfare. Second, it offers a firm-level conceptualization that extends beyond generic “strategic trade-offs” by specifying diagnostic attributes that link dilemmas to mechanism design in marketing. Third, it provides an integrative taxonomy and framework that indicate when and how marketing should deploy communication, regulation, group-structure or strategic design – alone or in bundles – under explicit boundary conditions, with propositions that invite empirical testing. Taken together, the account is sufficiently general to apply across domains yet specific enough to guide actionable decisions in marketing strategy and implementation.

The paper is organized as follows. First, we describe the method used to systematically review research on social dilemmas. Second, we synthesize research across disciplines, identify and evaluate distinct attributes of social-dilemma conceptualizations and develop a firm-level conceptualization. Third, we present four illustrative cases to sharpen theorizing for marketing-relevant dilemmas. Fourth, we propose a marketing-centered taxonomy of solutions applicable across these dilemmas. Fifth, we develop an integrative framework with boundary conditions and propositions. Finally, we discuss contributions to marketing theory and practice.

2. Method

The following subsections describe the procedures used to identify, screen and analyze articles for the review (see Figure 1 for a summary). Because research on social dilemmas is



Journal of Economic Literature, Quarterly Journal of Economics, American Economic Review, Journal of Economic Perspectives, Journal of Political Economy, International Organization, Environmental Politics, American Journal of Political Science, Political Analysis, Political Communication, Annual Review of Psychology, Psychological Science in the Public Interest, Psychological Bulletin, Trends in Cognitive Sciences, Behavioral and Brain Sciences, Annual Review of Sociology, American Sociological Review, Sociological Methods & Research, Information, Communication & Society, Socio-Economic Review, Academy of Management Review, Academy of Management Journal, Journal of Management, Strategic Management Journal, Management Science, International Journal of Marketing, Journal of the Academy of Marketing Science, Journal of Retailing, Industrial Marketing Management, International Journal of Research in Marketing, Journal of Consumer Research, Journal of Marketing Research, Journal of Public Policy & Marketing, Marketing Science, Journal of Consumer Psychology, European Journal of Marketing, Journal of Macromarketing Business & Society, Journal of Business Ethics, Research Policy, Business Ethics Quarterly, and Journal of Business Research.

Figure 1. Identification, screening and coding of research articles in this review

broad and dispersed across disciplines, we adopted a depth-first systematic literature review (SLR) to enable close, theory-aware reading of each article and to build an integrative conceptual framework from fragmented literature streams.

Journal selection. Given that research on social dilemmas spans multiple disciplines over many decades, we adopted a depth-first scope to enable close, theory-aware coding of each article rather than a broad but shallow sweep. This depth-first, high-quality journal strategy follows established practice in marketing SLRs and helps avoid unmanageable hit volumes without improving inference quality (Khan and Pandey, 2023; Maklan *et al.*, 2015). Following prior research, we followed PRISMA-consistent principles in documenting search, screening and inclusion decisions (e.g. de Oliveira Santini *et al.*, 2020; Yannopoulou *et al.*, 2023). To ensure breadth across the social sciences and rigor in coverage, we used Web of Science to identify leading journals in sociology, psychology, economics, political science, management and marketing. We selected five leading journals (by impact and standing) in each of these six disciplines. Also, to further strengthen coverage of firm-level and societally relevant research, we included five leading general business journals: *Business and Society*, *Journal of Business Ethics*, *Research Policy*, *Business Ethics Quarterly* and *Journal of Business Research*. Finally, to reflect marketing’s centrality to our contribution, we expanded marketing coverage to 12 journals whose editorial scope is directly relevant to firm-level social dilemmas (e.g. *European Journal of Marketing* and *Journal of Public Policy and Marketing*). This yields a corpus of 42 leading journals.

Therefore, the final list includes the following journals: *Journal of Economic Literature*, *Quarterly Journal of Economics*, *American Economic Review*, *Journal of Economic Perspectives*, *Journal of Political Economy*, *International Organization*, *Environmental Politics*, *American Journal of Political Science*, *Political Analysis*, *Political Communication*, *Annual Review of Psychology*, *Psychological Science in the Public Interest*, *Psychological Bulletin*, *Trends in Cognitive Sciences*, *Behavioral and Brain Sciences*, *Annual Review of Sociology*, *American Sociological Review*, *Sociological Methods and Research*, *Information, Communication and Society*, *Socio-Economic Review*, *Academy of Management Review*, *Academy of Management Journal*, *Journal of Management*, *Strategic Management Journal*, *Management Science*, *Journal of Marketing*, *Journal of the Academy of Marketing Science*, *Journal of Retailing*, *Industrial Marketing Management*, *International Journal of Research in Marketing*, *Journal of Consumer Research*, *Journal of Marketing Research*, *Journal of Public Policy and Marketing*, *Marketing Science*, *Journal of Consumer Psychology*, *European Journal of Marketing*, *Journal of Macromarketing*, *Business and Society*, *Journal of Business Ethics*, *Research Policy*, *Business Ethics Quarterly* and *Journal of Business Research*. The full list appears in Web Appendix A.

Database compilation. Using the 42-journal corpus, we searched Scopus, applying field codes and operators to capture social dilemma terms in titles, abstracts or keywords, with no time limits. Guided by canonical terminology for collective action and social dilemmas and following Ostrom [1] (1998), we searched for “social dilemma,” “public good,” “collective good,” “tragedy of the commons,” “commons dilemma,” “social trap,” “social fence,” “moral hazard” and “credible commitment.” The exact search syntax used in Scopus and EBSCO is reported in Web Appendix B. To ensure coverage, we repeated the search in EBSCO, merged the two result sets and removed duplicates. Across all journals included in the review, the database search yielded 432 records. After screening and duplicate removal, 104 unique articles were retained from the database search (all 104 are referenced in Web Appendices C and D). We then reviewed the reference lists of the included papers to locate additional relevant studies published in leading journals across disciplines. This backward tracing identified 14 additional articles that were either published in the same leading journals or played a key role in conceptualizing social dilemmas in the social sciences. For example, although Hardin (1968) was published in *Science*, we included it because “the tragedy of the commons” originates in that article. In total, we reviewed 118 articles.

Article reviewing. Articles were included only when social dilemmas were central to the paper’s conceptual arguments, empirical setting or proposed solution logic. Studies in which social dilemmas, collective action problems or closely related constructs appeared only in passing were excluded. This rule helped maintain conceptual precision by ensuring that the review focused on research directly relevant to the structure, mechanisms and resolution of social dilemmas. We read each article in depth and recorded three elements. First, we documented the social dilemma attributes discussed in the study, including intertemporal structure, distribution of benefits and costs, observability and attribution, stakeholder dispersion, competitive pressure and risk of free riding and reversibility of harm. Second, we noted whether the article offered a taxonomy of solutions or identifiable resolution levers for the specified social dilemma. Third, we prepared a summary of findings for framework development by comparing attribute profiles with the solutions emphasized in each article and distilling recurring patterns that informed the integrative conceptual framework and the propositions presented later.

Throughout this iterative process, emerging conceptual categories and their relationships were continuously refined through repeated comparison across the reviewed studies to ensure conceptual consistency and coherence. Conceptual quality was also considered in

interpreting and integrating the reviewed studies. Specifically, greater weight was given to studies that offered clearer conceptualizations of social dilemmas, more explicit theoretical mechanisms and richer explanations of dilemma attributes and marketing solution mechanisms. These quality considerations informed the synthesis and framework development but were used to contextualize the weight of evidence rather than to exclude studies from the review.

Following article-level coding, observations were compared across studies to identify recurring dilemma attributes. These attributes were then consolidated into a smaller set of higher-order diagnostic dimensions. Solution mechanisms discussed across the reviewed studies were likewise compared and grouped into four higher-order solution families: communication and norm activation, regulation, group-structure and governance and strategic marketing. Boundary conditions and outcomes were inferred from repeated contingencies, enabling conditions and performance pathways described across the literature. This synthesis moved from article-specific observations to higher-order conceptual categories and informed the integrated framework depicted in Figure 2 and the propositions developed later in the paper.

3. Overview of social dilemmas

Social dilemmas refer to situations in which the rational choice of entities for short-term benefits ultimately leads to long-term negative outcomes for all in society (Ostrom, 1998). In other words, “[a] social dilemma presents people with a situation where what is desirable for the individual, group or department, firm, community, country, or international system may have undesirable effects at a different level of aggregation” (Barnes *et al.*, 2011, p. 1616). Specifically, Dawes (1980, p. 170) conceptualizes social dilemmas using two distinct attributes:

- (1) at any given decision point, an entity can receive a higher payoff for choosing a “socially defecting choice than a socially cooperative choice,” without considering the costs to other entities in society, however;

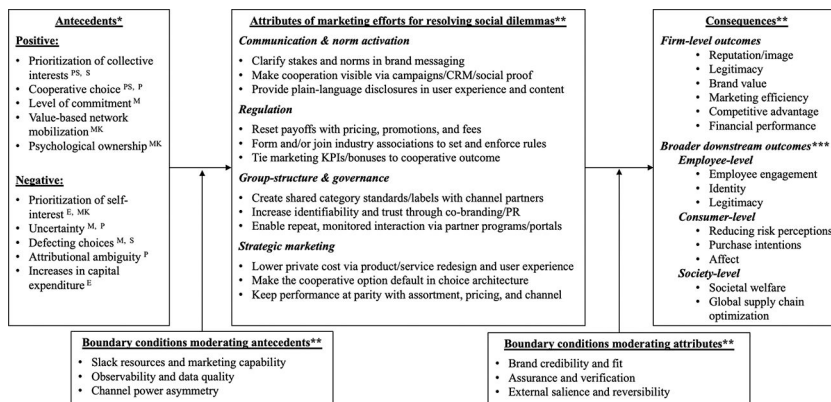


Figure 2. Toward an integrative framework of marketing solutions for resolving social dilemmas

Note(s): *Note 1: E: Economics; M: Management; MK: Marketing; PS: Political science; P: Psychology; and S: Sociology. **Note 2: The attributes of marketing efforts for resolving social dilemmas and associated consequences were identified from the summary of findings from research on different types of social dilemmas. ***Note 3: The propositions developed in this manuscript focus primarily on firm-level mechanism design and firm-level outcomes. Employee-, consumer- and society-level consequences are presented as broader downstream implications of firms' efforts to resolve social dilemmas

- (2) if all entities in a society make cooperative choices over defecting ones, all entities in the society will be better off. Therefore, in short, social dilemmas refer to a conflict between short-term personal-interests and longer-term collective interests.

Although social and ethical dilemmas often overlap, they are not the same. Ethical dilemmas center on judgments about right and wrong and can arise without interdependence in payoffs (Nama and Swartz, 2002). Social dilemmas, by contrast, are defined by a collective-action payoff structure in which individually sensible choices aggregate to collectively worse outcomes (Dawes, 1980; Kollock, 1998). Many social dilemmas carry moral salience, but the construct mainly concerns cases where the mechanism is a payoff misalignment among interdependent actors. Social dilemmas are investigated from different perspectives in sociology, psychology, economics, political science and management science and are also called by different names: the public good and the theory of collective action (Olson, 1965), the tragedy of the commons (Hardin, 1968), moral hazard (Holmstrom, 1982), the credible commitment dilemma (Williams *et al.*, 1997), social trap (Platt, 1973), social fence (Stenseth, 1988) and commons dilemmas (Shultz and Holbrook, 1999). Web Appendix C provides exemplar conceptualizations of social dilemmas and their specific attributes across different disciplines.

Following Jaakkola (2020), this research uses theory synthesis by summarizing and integrating extant knowledge on social dilemmas to enhance our understanding of such phenomena. Accordingly, building on the foundations of research on social dilemmas in other social science disciplines, this research outlines the conceptual domain of social dilemmas and corresponding attributes. In particular, to synthesize research on social dilemmas and achieve conceptual integration across economics, political science, sociology, psychology, marketing and management literature streams, this research explores different types and the specific attributes of social dilemma conceptualizations from different disciplines. Specifically, in the following paragraphs, we go into more detail about social dilemma conceptualizations across different disciplines to articulate distinct/common characteristics.

Public good or collective action problem. “A common, collective, or public good is here defined as any good such that, if any person X_i in a group $X_1, \dots, X_i, \dots, X_n$ consumes it, it cannot feasibly be withheld from the others in that group” (Olson, 1965, p. 14). A collective good has one or both of the following characteristics:

- If the mutually beneficial outcome is achieved, every group member who shares this objective automatically benefits – “nonpurchasers cannot feasibly be kept from consuming the good.”
- If the good is available to any single individual in a group “it is or can be made available to the other members of the group at little or no marginal cost” (Olson and Zeckhauser, 1966, p. 267).

These two properties, known as non-excludability and non-rivalry respectively, lead to free-riding, as individuals underinvest while relying on others to bear the cost of provision (Battaglini *et al.*, 2014; Isaac and Walker, 1988). Classic examples include roads, national defense, municipal parks and publicly funded fireworks displays: nonpayers cannot be excluded from enjoying them, even those who do not pay their taxes.

Collective action theory is therefore closely tied to the free-rider problem, especially in large groups where individuals can take advantage of others’ contributions (Edney, 1980). Free-riding generates a social dilemma in which short-term, self-interested under-contribution is privately attractive, but if widely adopted, collective provision fails and the group is worse off (Balliet, Mulder, *et al.*, 2011; Kosfeld *et al.*, 2009). For instance, returning

to public services, if too many citizens choose short-run savings over tax contributions, governments cannot maintain shared goods and everyone loses access over time. Even when collective benefits are clear, cooperation is fragile because personal incentives conflict with group welfare.

Commons dilemma/tragedy of the commons. Commons dilemmas arise in common-pool resources that exhibit subtractability (one actor's use reduces what remains) and costly exclusion (it is hard to keep others out). Thielmann *et al.* (2020) use a game-theoretic lens to describe the structure of a commons dilemma, such that in a group of size n , each individual may consume x_i from a shared stock that regenerates at rate r ; the resource depletes when total consumption $\sum x_i$ exceeds regeneration r ($\sum x_i > r$). Hardin's (1968) "tragedy of the commons" is best read as a vivid outcome within this class. In his seminal essay, Hardin argues that individualistic exploitation of scarce resources is one of the world's most compelling problems. As population expands "geometrically" in a finite world, the per-capita share of goods inevitably falls (Hardin, 1968, p. 1243). If a pool of natural resources is shared by all, and each person harvests with only personal gain in mind, the shared pool will steadily deplete. Since Hardin's influential article, scholars have used "tragedy of the commons" as a metaphor for overconsumption, exploitation and degradation of common-pool resources – examples include over-harvesting of timber and degradation of freshwater (Ostrom, 1999, p. 493). Under open access, the immediate benefits of overuse accrue privately, while the costs of over-exploitation are dispersed across everyone (Moxnes, 1998).

Cattle herders, for example, should limit their use to keep shared pasturelands fertile. Yet, the short-term, self-interested move is to add animals and graze more, especially if others restrain their herds. Because payoffs depend on what others do and exclusion is weak, no one wants to cut back alone. As each herder maximizes use, the grass is overgrazed, the land is stripped, cattle die and all herders lose together (Hardin, 1968). A distinctive psychological dynamic amplifies this outcome. Individuals often anticipate that common resources will be depleted whether they personally restrain or not. They believe that if they do not consume extra, others inevitably will (Baumeister *et al.*, 2016). No one wants to be the only loser while others exploit the resource and profit at the group's expense (Shultz and Holbrook, 1999). As a result, people come to believe they should also behave selfishly. The same pattern appears beyond grazing – energy overconsumption, neighborhood pollution or high fertility in resource-constrained settings – where private, near-term gains aggregate into dispersed, longer-term losses. In this context, individualistic pursuits can imperil our common base of resources and, in the extreme, our very existence (Shultz and Holbrook, 1999).

The credible commitment dilemma. Although Staton and Reenock (2010, p. 117) explain that there are various scenarios of commitment problems that may negatively affect social relations, they argue that all of these commitment problems share the central dynamic, which is: "a failure of one party to credibly commit to some course of action makes it less likely that another party will act in reliance on that commitment, leading to an inefficient outcome." In this regard, a commitment problem can be defined as a situation in which individuals, organizations and firms cannot achieve gains because of their partners' and/or their own inability to make and keep credible threats or promises. Relatedly, an entity may anticipate other entities' level of commitment and decides to commit a certain amount of effort based on its anticipation and revise its perceptions of efficacy due to cognitive dissonance when it predicts or realizes that other entities may abstain from collective action (Gould, 1993). However, in a large multi-entity alliances environment in which the observability of other entities' behavior is uncertain, ambiguous and opaque, the level of commitment will be reduced by all entities (Fonti *et al.*, 2017). Thus, because all entities make an effort to benefit the most, and due to the high level of complexity in observing and anticipating all possible

alliance evolution paths, the likelihood of free-riding increases in a multi-entity alliances environment (Fonti *et al.*, 2017).

Indeed, managing “the inherent tension between cooperation and competition” in alliances, particularly in large multi-entity alliances environment, is necessarily a social dilemma, where a rational choice of every single entity, but the socially defecting choice, may contribute to a higher outcome for that single entity partner, but once all entity partners adopt such a strategy, the alliance will fail (Zeng and Chen, 2003, p. 587). A well-known example of the credible commitment dilemma is the prisoner’s dilemma in which both defendants can make binding promises to remain silent and receive a shorter sentence period. However, because each prisoner is interrogated individually in separate interrogation rooms, without knowledge of what the other prisoner is doing and with the hope of being sentenced for a shorter period for confessing first, the dominant strategy for both prisoners is to confess. While each prisoner can make either the uncooperative choice (confess) or cooperative choice (not confess), both will usually decide to confess to having major involvement in the crime, leading to a longer sentence for both (Shultz and Nill, 2002). An example of the prisoner’s dilemma can be transposed onto a modern business scenario in which there is market competition between two competing firms, say X and Y. Specifically, by enhancing marketing expenses (e.g. advertising) and lowering prices, X may increase its sales and gain a competitive advantage over Y. In doing so, X can recover from the losses caused by high costs and low prices. However, if Y decides to respond to X in a similar fashion to face the threat of competition, both firms should bear high costs and low prices, which is in conflict with their profit objective. On the other hand, if both firms decide to cooperate by keeping prices high, they can potentially enjoy higher profits.

Moral hazard and adverse selection. In markets and societies, parties often hold asymmetric information, so one side to an exchange has access to more or better information than the other (Holmstrom, 1979; Kihlstrom and Pauly, 1971; Pauly, 1974). “Moral hazard refers to the problem of inducing agents to supply proper amounts of productive inputs when their actions cannot be observed and contracted for directly. Adverse selection refers to a situation where actions can be observed, but it cannot be verified whether the action was the correct one, given the agent’s contingency, which he privately observes” (Holmstrom, 1982, p. 324). In short, moral hazard arises when the party with an informational advantage has incentives to exploit hidden actions, whereas adverse selection occurs when uninformed parties are reluctant to transact with informed parties due to the risk of being misled. Hence, asymmetric information is the key source of moral hazard and can lead to adverse selection in markets (Cohen and Loeb, 1984; Hui *et al.*, 2016).

For example, moral hazard can arise in agency relationships where an uninformed principal engages an informed agent to act on its behalf, and the agent can deviate from the contractually agreed behavior (Homburg *et al.*, 2020; Tienken *et al.*, 2023). Moral hazard and adverse selection frequently occur in lending and insurance, where one party – client or company – holds an information advantage (e.g. clients omitting health history to lower a life-insurance quote). Although the classic form (e.g. principal-agent) involves two parties, moral hazard can also be many-sided with numerous agents and no single principal (Dutta and Radner, 1993). In multiagent settings, asymmetric information can induce free-riding, where individuals benefit from others’ information or effort while withholding their own (Holmstrom, 1982). As free-riding scales, it threatens the interests of the group as a whole, turning informational asymmetries into a social dilemma in which pursuit of personal advantage conflicts with collective welfare (Anesi, 2009; Homburg *et al.*, 2020; Ostrom, 1998).

Social traps and social fences. Social traps refer to situations in which members of a group choose activities that achieve short-run benefits, while in the long-run, these choices have negative consequences for the decision-maker and the group as a whole (Rothstein, 2005). Although social traps appear in all aspects of our lives, “leading to momentous decisions affecting war and peace as well as the mundane relationships of keeping promises in everyday life” (Ostrom, 1998, p. 1), sometimes, falling into social traps is dangerous and even irreparable. For example, individuals are often asked by authorities to lower their thermostats to conserve energy during extremely cold winter days. Owing to personal interests, individuals may choose to defect by keeping their thermostats high to not suffer from the cold. However, if all people decide to keep their thermostats high, the energy supply will run out, and all individuals will be worse off by suffering from the cold (Gupta and Ogden, 2009).

Conversely, a social fence refers to a situation in which the short-term adverse consequences prevent people from doing something that can have a long-term positive benefit for themselves and others (Shultz and Holbrook, 1999). For instance, public goods are resources that all citizens may use and benefit from without contributing money or providing any help in constructing them. People may enjoy the parks in their neighborhood even if they decide to evade municipal taxes. However, if there is temptation for all to avoid short-term adverse consequences of paying taxes and rationally decide to free-ride, there will not be enough resources to provide public goods. As a result, all individuals will be deprived of benefiting from public goods in the long-term (Kollock, 1998). Web Appendix D summarizes research findings on various types of social dilemmas.

As can be seen from Web Appendices C and D, across different disciplines, there are a variety of perspectives that are used to view social dilemmas. Within this broad category, different types of social dilemmas have been conceptualized with unique characteristics. This research elaborates on each discrete type of social dilemma, with the overarching objective of identifying a comprehensive set of attributes and variations inherent in different types of social dilemmas, thereby developing an accurate conceptualization of a firm’s social dilemma. Indeed, while social dilemmas are relevant to a variety of scenarios in which individuals face decisions that involve conflicts including, among other things, short-term self-interest and collective well-being, they differ in their specific characteristics and applications.

Specifically, while “the term ‘social dilemma’ refers to a large number of situations in which individuals make independent choices in an interdependent situation” (Ostrom, 1998, p. 3), a choice of whether, when, how much to collaborate/defect sets these dilemmas apart. In a public good dilemma, for example, individuals would prefer others to bear the cost of contributing to a shared benefit, leading to under-provision when everyone follows this logic. Similarly, the tragedy of the commons involves the overuse or depletion of shared resources due to self-interest. However, moral hazard arises when individuals take risks without fully bearing the consequences that impact collective welfare. Analogously, the credible commitment dilemma focuses on the problem of sustaining cooperation and trust among parties who may have incentives to renege on agreements. Social traps involve situations where individuals collectively choose strategies that lead to suboptimal outcomes, even when alternatives are known. On the other hand, social fences pertain to situations where individuals must cooperate to achieve common goals, but conflicts of interest may hinder such cooperation. Finally, the commons dilemma often involves the allocation of limited resources among multiple users, leading to competition and overexploitation.

Accordingly, the applications of different social dilemmas are varied. While the public good dilemma and the tragedy of the commons are prevalent in describing environmental and resource management issues, moral hazard often articulates issues associated with insurance and financial sectors. Credible commitment dilemma is used to explicate

international relations and cooperation. Social traps, social fences and commons dilemmas are more general frameworks that can be applied to various social and economic situations. However, even though social dilemmas differ in their specific characteristics and applications, all social dilemmas have a commonality – which is immediate incentive to act in favor of short-term self-interest, with eventual harmful outcomes for the decision-maker and also to the other group members (Shultz and Holbrook, 1999).

Therefore, this comprehensive exploration of the fragmented literature on social dilemmas can facilitate the development of solutions for the large-scale social dilemmas that have implications for a firm's marketing strategies and activities. As such, building on previous literature and highlighting the distinct attributes of social dilemmas (i.e. short-term/long-term self-interest/collective-interest and cooperation/defection tradeoffs) for marketing strategy purposes, we conceptualize a firm's marketing social dilemma as a situation where payoffs are interdependent and short-run, privately attractive marketing choices conflict with longer-run collective welfare and the firm's durable interests, with the tension conditioned by observability, externality dispersion/reversibility, coordination/free-rider risk and the short–long payoff gap. Table 1 delineates different types of social dilemmas' attributes by prioritizing the most significant characteristics of each type of social dilemma to explicitly illustrate the distinctions of our conceptualization in terms of its comprehensiveness and applicability.

Collectively, social dilemmas, in their various forms, can be categorized on basis of the six key attributes: short-term individual interest, short-term collective interest, defecting choice, cooperative choice, long-term individual interest and long-term collective interest. Accordingly, we highlight significant characteristics of each type of social dilemma to explicitly illustrate how our conceptualization is distinct and specific to firms. With reference to the tragedy of the commons and the commons dilemma, short-term individual interest, defecting choice and long-term collective interest are significant attributes, as individuals prioritize immediate gains from exploiting shared resources at the expense of others and the collective. Specific to the credible commitment problem and moral hazard and adverse selection, both short-term individual interest and short-term collective interest are equally significant attributes, as these dilemmas hinge on building trust and honoring commitments in the short term. In these dilemmas, long-term collective interest is also important and can be achieved when individuals commit to agreements, fostering trust and cooperation over time or vice versa.

With regard to the public good problem and social fence, short-term individual interest, defecting choice, long-term individual interest and long-term collective interest are key as these dilemmas revolve around individuals prioritizing short-term cost-avoidance over the long-term public good provision and/or benefits. Similarly, for social trap, short-term individual interest, defecting choice, long-term individual interest and long-term collective interest are significant attributes, as individuals pursue immediate gains by choosing to pursue defecting choices, which are associated with the long-term negative consequences both for the individual and for some larger group or society. Finally, in our conceptualization, all of the key attributes of social dilemmas are inherent to a firm's social dilemmas. That is, short-term personal gain through defecting choice, short-term and long-term collective benefits through cooperative choice and long-term individual interests are incorporated in our conceptualization of a firm's social dilemma. Next, we turn to an exemplar social dilemma faced by firms – climate change, pandemic, data privacy, DEI – as illustrative cases to demonstrate the role of marketing in resolving social dilemmas.

4. Illustrative cases

The following four cases are illustrative rather than exhaustive. Their purpose is not to review each substantive domain in full, but to show how different social dilemmas take

Table 1. Evaluation of social dilemmas' attributes

Social dilemma*	Significant short-term individual interest	Significant short-term collective interest	Significant defecting choice	Significant cooperative choice	Significant long-term individual interest	Significant long-term collective interest
Public good or collective action problem ^{E,PS}	✓		✓			✓
Commons dilemma ^{E,PS,S}	✓		✓		✓	✓
The credible commitment problem ^{E,PS}	✓	✓				✓
Moral hazard and adverse selection ^E	✓	✓				✓
Social traps ^{M,MK,PS}	✓		✓		✓	✓
Social fences ^{P,S}	✓		✓		✓	✓
Firm's social dilemma	✓	✓		✓		✓
Note(s): *E: Economics; M: Management; MK: Marketing; PS: Political science; P: Psychology; and S: Sociology. Even though almost all different types of social dilemmas can be used interdisciplinary and have applications in various social science disciplines, we specify the most relevant discipline(s) to each social dilemma on the basis of their usage in those discipline(s)						

distinct firm-level forms depending on their attribute profile. Specifically, the cases vary in the observability of actions and outcomes, the dispersion and reversibility of harms, the degree of coordination required, the salience of free-rider risk and the gap between short-run private gains and longer-run collective costs. These differences matter because they shape which marketing mechanisms are likely to be most effective.

4.1 *Climate change social dilemma*

Marketing scholars and practitioners have engaged climate and environmental issues for decades, yet climate risks continue to intensify and disrupt economies and communities (Fisk, 1974; Grove *et al.*, 1996; Hunt, 2012; IPCC, 2018; Papadas *et al.*, 2024; USGCRP, 2018; Varadarajan, 2017). Climate change exhibits the core features of a social dilemma. Harms are widely dispersed and often delayed, which weakens individual accountability and invites free riding. Benefits from near-term resource use and emissions are private, while many costs are collective and partly irreversible once thresholds are crossed (Capstick, 2013; Duffy *et al.*, 2017; Irwin, 2009). Individuals and organizations therefore face incentives to defect even when cooperation would improve long-run welfare. From a firm-level perspective, this is a dilemma characterized by low to moderate observability of action, highly dispersed externalities, partial irreversibility of harm and substantial coordination demands across supply chains, channels and end users.

These dynamics create marketing-relevant frictions. Consumers report pro-environmental attitudes but often choose lower-cost or higher-convenience options, producing attitude–behavior gaps that limit demand for greener offerings unless price, performance or convenience are matched (Pieters *et al.*, 1998; Gupta and Ogden, 2009; Gleim *et al.*, 2013; Smith and Mayer, 2018). Firms encounter similar tensions in product design, supply-chain standards, pricing and communication. Deferring mitigation and adaptation protects near-term margins and simplifies execution. Investing in lower-carbon products, supplier requirements, take-back and repair and demand shaping requires upfront cost and coordination, yet it builds resilience, legitimacy and long-term market access. Collectively, adherence to carbon-intensive production–consumption systems persists because immediate concerns about growth, jobs, living standards and energy security dominate attention despite well-documented future damages. This pattern portrays a classic social dilemma in which awareness of future harms does not necessarily translate into cooperative action by individual actors (Rashidi-Sabet *et al.*, 2022; Smith and Mayer, 2018). Accordingly, climate change is especially useful as an illustrative case because it shows how weak attribution, delayed feedback and broad free-rider opportunities make communication alone insufficient and increase the importance of coordinated standards, credible verification and strategic redesign that reduces the private costs of greener behavior.

Therefore, building on prior research and emphasizing the short- versus long-term and self- versus group-interest tradeoffs, we conceptualize the climate change social dilemma for firms as behavior that favors near-term gains in cost and convenience over the longer-term collective and firm costs of accumulated, partly irreversible climate harms, under conditions of dispersed externalities, low observability of actions and outcomes and high coordination and free-rider risk.

4.2 *Pandemic social dilemma*

According to the World Health Organization (WHO) COVID-19 dashboard, there have been over seven million confirmed COVID-19 deaths worldwide in the past few years (WHO, 2025). Meanwhile, roughly all other people, who have not been infected by COVID-19, have been affected by the scale and scope of the virus (Scott *et al.*, 2020). Appropriately, referring to The International Federation of the Red Cross and Red Crescent's definition of disaster – “calamitous

event that seriously disrupts the function of a community or society and causes human, material, and economic or environmental losses that exceed the community's or society's ability to cope using its own resources" (IFRC.org) – Scott *et al.* (2020) view the COVID-19 outbreak as a disaster. Similarly, Mende and Misra (2020) compare COVID-19 with climate change and conclude that COVID-19 can be viewed as a large-scale disaster that challenges consumers, companies and governments.

According to American Marketing Association (2017), "[m]arketing is the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large." Given the fact that the COVID-19 pandemic has severely hampered all facets of marketing, it is a significant threat for all marketing stakeholders, including consumers, firms, governments and societies at large (Mende and Misra, 2020). Some scholars have started to argue that the spread of the COVID-19 virus is a large-scale collective action problem (Bacq and Lumpkin, 2020; Oehmen *et al.*, 2020), while Jagers *et al.* (2020; p. 1283) believe that collective action problems "cannot be overcome, or managed, unless at least some actors act against their own short-term self-interest, or against the interest of their principals (i.e. cooperate rather than defect)." Accordingly, Harring *et al.* (2021) argue that COVID-19 cannot be controlled in a timely manner unless people all over the world decide to make sacrifices for the collective good of human beings. Some actions and sacrifices are required to cope with the COVID-19, such as isolating, wearing a face mask and social distancing; however, many individuals are not ready to make such sacrifices and are not willing to accept the personal cost of sacrificing for the benefits of the commons (Harring *et al.*, 2021). Compared with climate change, however, the pandemic case exhibits a different attribute profile: the harms are more immediate, the consequences of inaction are more salient and many outcomes are more visible at the aggregate level, even though preventive actions remain unevenly observed and require extensive coordination across actors and institutions.

Therefore, the COVID-19 pandemic can be viewed as a large-scale collective action problem – characterized by a large degree of complexity, a large number of actors involved, large geographic territories and comparatively long temporal distance (Jagers *et al.*, 2020). Accordingly, the "corona pandemic is thus a typical collective action problem, or social dilemma – a situation in which the group members have an incentive to choose to pursue individual gain, rather than behave in the whole group's best long-term interest, thus resulting in a collective loss" (Harring *et al.*, 2021, p. 2). From a firm-level perspective, the pandemic case is especially instructive because it reveals a dilemma in which coordination requirements are acute, outcomes are highly consequential and visible, but compliance with preventive actions depends heavily on rules, monitoring and shared governance rather than on voluntary persuasion alone. Therefore, we conceptualize the pandemic social dilemma as behavior by firms, consumers, marketers and social groups that favors hassle reduction and mobility for consumers alongside margin preservation for firms over the longer-term societal and economic consequences of viral spread, employment loss and recession, in a setting of strong interdependence and a need for coordinated rules where outcomes are visible but preventive actions are unevenly observed.

4.3 Data privacy social dilemma

Firms face a recurring choice between maximizing short-run data capture, personalizing their offerings and retargeting versus investing in consent-centric, privacy-preserving marketing that can reduce near-term yield (Quach *et al.*, 2022). While formal privacy regimes and consent frictions typically curb tracking intensity and can reduce near-term returns (Wang *et al.*, 2024), expansive data collection and sharing boost immediate targeting

efficiency and performance (Quach *et al.*, 2022). However, an extensive body of research demonstrates that covert data collection and opaque tracking may undermine trust, willingness to disclose information and purchase interest (Appel *et al.*, 2020; Brough *et al.*, 2022; Martin and Murphy, 2017). Further, even though data monetization and sharing create immediate performance gains, they also trigger regulatory exposure and implementation costs that push firms toward more transparent, permissioned approaches (Quach *et al.*, 2022). Many firms craft persuasive consent requests to protect data access, revealing strong incentives to prioritize immediate capture over longer-term, privacy-preserving investments (D'Assergio *et al.*, 2025). This behavior reflects incentives to protect immediate yield rather than to shrink collection or adopt privacy-preserving technologies that reduce near-term data supply (Martin and Murphy, 2017). Compared to climate and pandemic dilemmas, the data privacy case is distinct owing to high strategic observability within firms, lower transparency to consumers regarding actual data practices and a pattern in which short-run gains are concentrated, while long-run harms diffuse gradually across a broader ecosystem of consumers, firms, platforms, ad networks and regulators.

The short-run performance gain of expansive data collection is clear because it enables granular tracking and retargeting that enhance attention and conversion, especially when personalization is possible (Quach *et al.*, 2022). The delayed collective cost is diffuse and accumulates through trust erosion, annoyance and perceived surveillance, which depresses engagement over time (Brough *et al.*, 2022). Harms are dispersed across consumers, firms, ad networks and platforms in data ecosystems, which makes system-level losses hard to attribute to any single actor (Appel *et al.*, 2020). In the absence of strict third-party filtering and other guardrails on online platforms, actors tend to favor their short-term interests over the ecosystem's long-term welfare. These conditions create strong free-rider incentives, where individual firms can benefit from aggressive harvesting, while others invest in privacy and consent that stabilize the ecosystem. The outcome is a social dilemma in which short-run extraction undermines the long-run value of a trustworthy data ecosystem and the firm's own legitimacy and performance. Accordingly, this case highlights a setting in which communication may help but is unlikely to be sufficient unless paired with assurance, monitoring and governance mechanisms that make compliance visible and credible to users and regulators. Therefore, we conceptualize the data-privacy social dilemma for firms as the tendency to prioritize short-run performance gains from expansive data collection, personalization and retargeting while discounting the longer-term collective costs of trust erosion, consumer welfare losses and ecosystem-wide regulatory backlash (group interest) that ultimately undermine firms' own long-run outcomes.

4.4 Diversity, equity and inclusion social dilemma

Firms confront a recurring choice in DEI. They can commit resources now to recruiting, advancement, training, work design and compensation practices that support inclusion or they can defer these investments to protect budgets and near term metrics (Jeong and Harrison, 2017; Konrad *et al.*, 2021). Effective DEI requires bundles of practices that raise representation, reduce gaps in career outcomes and increase inclusion through plans, training, mentoring, networking groups, grievance systems, targeted recruiting and targeted development (Leslie, 2019). These initiatives are costly and continuous, so it is tempting to favor alternatives that lift short run margins. Advocates advance a value in diversity view that links diversity to learning, adaptability and competitive advantage and research has tested whether DEI improves financial outcomes (Boone and Hendriks, 2009; Cox and Blake, 1991; Jeong and Harrison, 2017). Barry and Bateman (1996, p. 758) argue that DEI should be seen through the lens of a social dilemma because diversity and inclusion issues "(a) often require organization members to make behavioral choices that place self-interest and the interests of others in conflict, (b) often challenge decision makers to manage inconsistencies between the short-term and long-term consequences of the

choices they make, (c) may compel choice making without the benefit of explicit knowledge of the conflicts of interests and of the consequences of the choices to be made, and (d) typically involve social issues having substantial societal implications.” Among the four cases, DEI is especially useful for illustrating a dilemma in which many actions and intermediate outcomes are only partially observable, benefits are diffuse and delayed and progress depends heavily on cross-unit coordination, organizational commitment and resistance to free-riding on others’ inclusion efforts.

As such, the private benefit from deferring DEI arrives quickly through cost containment and administrative simplicity. The collective benefits from sustained DEI are delayed and dispersed across teams, the organization and the wider talent system through better decisions, stronger governance and legitimacy with stakeholders (Nazliben *et al.*, 2024; Post and Byron, 2015). In this setting, individuals and units gravitate toward immediate gains that conflict with the interests of the collective, short-term targets are favored over long-term outcomes, decisions are made without full recognition of interdependence and actions can generate broader societal harm. This pattern is the hallmark of a social dilemma applied to DEI. For that reason, the DEI case helps illustrate why communication without organizational follow-through can appear symbolic, why governance and measurement matter for credibility and why sustained progress often requires bundles of mutually reinforcing mechanisms rather than isolated initiatives. Accordingly, we define the firm-level DEI social dilemma as the tendency of organizational actors to prioritize immediate gains while discounting the longer-term harms that DEI choices can impose on the organization, its workforce and society, where benefits are diffuse and delayed, actions and outcomes are imperfectly observable, effective progress requires cross-unit coordination and free-riding on others’ investments is a persistent risk.

Taken together, the four cases show that firm-level social dilemmas differ not simply by topic, but by their attribute profile. Climate change is marked by dispersed and partly irreversible harms with weak attribution and high coordination demands. Pandemic response features acute interdependence, visible consequences and strong reliance on coordinated rules. Data privacy centers on concentrated short-run gains, diffuse long-run trust costs and the need for assurance and governance in opaque ecosystems. DEI highlights delayed and distributed gains, partial observability and persistent coordination and free-rider challenges inside organizations. These cross-case differences are what make mechanism choice central rather than incidental. Table 2 demonstrates, for each illustrative dilemma, how a firm-level conceptualization maps to short-term benefits, long-term consequences and actionable marketing implications under the relevant attribute profile.

5. A taxonomy of marketing solutions

With the objective of helping entities solve social dilemmas, a rich body of literature in the social sciences has developed multiple taxonomies of solutions (e.g. Barry and Bateman, 1996; Cross and Guyer, 1980; Dawes, 1980; Edney, 1980; Kollock, 1998; Platt, 1973; Shultz and Holbrook, 1999). To reflect the significance of these classifications for organizations, we catalog the solutions proposed by prior scholars, state the objective of each and note their relevance for marketing (see Web Appendix E). Building on these foundations, we consolidate an integrative, marketing-centered taxonomy that travels across four illustrative firm-level dilemmas – climate change, pandemic, data privacy and DEI. Our goal is applied in the sense that it specifies the marketing levers that shift incentives, norms and interactions at firm and market levels and indicates where each lever works best. As shown in the taxonomy, solutions are grouped into: communication, regulation, group-structure and strategic marketing solutions.

Table 2. Illustrative firm-level social dilemmas, attribute profiles and marketing implications

Illustrative dilemma	Firm-level conceptualization	Key attribute profile	Short-term benefits of defection	Long-term consequences	Matched marketing implications
Climate change	Behavior that favors near-term gains in cost and convenience over the longer-term collective and firm costs of accumulated, partly irreversible climate harms	• Dispersed externalities • Low observability of actions and outcomes • Partial irreversibility of harm • High coordination requirements • High free-rider risk • Large short-run versus long-run payoff gap	• Avoid higher product prices • Preserve convenience and familiar consumption routines • Protect near-term margins • Accelerate production and access to carbon-intensive resources	• Accumulated climate harms • New physical and transition risks • Disrupted infrastructure and supply systems • Lower quality of life • Threats to health, well-being and safety • Reduced long-run market resilience and legitimacy	• Increase marketing efficiency and effectiveness • Improve firm image and brand value • Promote new (sustainable) product development • Boost the growth of green marketing in the long-term • Attract consumers, investors and employees • Increase employees' engagement and performance
Pandemic	Behavior by firms, consumers, marketers and social groups that favors hassle reduction and mobility alongside margin preservation over the longer-term societal and economic consequences of viral spread, employment loss and recession	• Strong interdependence • Highly salient and visible aggregate outcomes • Uneven observability of preventive actions • Acute coordination needs • Fast-moving consequences • Strong need for shared rules	• Maintain near-term revenue from unconstrained capacity • Avoid isolation and process frictions • Preserve convenience of in-person access • Reduce immediate compliance burdens	• Threats to public health • Employment loss • Supply-chain disruption • Recessionary pressure • Increased poverty and vulnerability • Wider disruption of interconnected social, physical and ecological systems	• Reduce consumers' risk perceptions and increase consumers' purchase intention • Influence global supply chains • Manage product and resource scarcity during the pandemic • Enhance reputation and legitimacy • Attract consumers, investors and employees

(continued)

Table 2. Continued

Illustrative dilemma	Firm-level conceptualization	Key attribute profile	Short-term benefits of defection	Long-term consequences	Matched marketing implications
Data privacy	The tendency to prioritize short-run performance gains from expansive data collection, personalization and retargeting while discounting the longer-term collective costs of trust erosion, consumer welfare losses and ecosystem-wide regulatory backlash	- Concentrated short-run gains - Lower transparency to consumers - Diffuse long-run harms across ecosystem actors - Hard attribution of system-level losses - Strong free-rider incentives - Need for assurance and governance in opaque ecosystems	- Higher conversion and ROI from granular targeting and tracking - Faster experimentation - Lower apparent acquisition cost - Stronger short-run yield from broad data access	- Trust erosion - Opt-outs and lower willingness to disclose information - Regulatory penalties - Platform restrictions - Degraded data quality over time - Weaker legitimacy and ecosystem stability	- Shift toward consent-centric and privacy-preserving design - Use clearer value exchange, granular controls and easy revocation - Adopt privacy-enhancing technologies - Support claims with assurance, governance and transparent standards - Default to minimal necessary data and shorter retention
		- Diffuse and delayed benefits - Imperfect observability of actions and outcomes - Cross-unit coordination requirements - Persistent free-rider risk - Tension between short-run efficiency and long-run inclusion, learning and legitimacy	- Lower search and onboarding costs from narrow recruitment - Faster cycle times - Avoidance of near-term change costs - Easier reliance on familiar networks, suppliers and routines	- Talent shortfalls and turnover - Weaker innovation from homogeneous teams - Reputational and regulatory risk - Reduced relevance with diverse customer segments - Foregone partnership and procurement opportunities	- Inclusive product and experience design - Broaden recruitment and supplier diversity with credible targets and reporting - Community co-creation and representative testing panels - Accessible communications and channels - Incentive realignment that embeds DEI in brand and go-to-market systems
DEI	The tendency of organizational actors to prioritize immediate gains while discounting the longer-term harms that DEI choices can impose on the organization, its workforce and society	- Diffuse and delayed benefits - Imperfect observability of actions and outcomes - Cross-unit coordination requirements - Persistent free-rider risk - Tension between short-run efficiency and long-run inclusion, learning and legitimacy	- Lower search and onboarding costs from narrow recruitment - Faster cycle times - Avoidance of near-term change costs - Easier reliance on familiar networks, suppliers and routines	- Talent shortfalls and turnover - Weaker innovation from homogeneous teams - Reputational and regulatory risk - Reduced relevance with diverse customer segments - Foregone partnership and procurement opportunities	- Inclusive product and experience design - Broaden recruitment and supplier diversity with credible targets and reporting - Community co-creation and representative testing panels - Accessible communications and channels - Incentive realignment that embeds DEI in brand and go-to-market systems

Communication solutions. Communication refers to marketing strategies that surface dilemma dynamics, correct misperceptions and activate norms that favor cooperation. Prior research shows that educational interventions (Barry and Bateman, 1996; Edney, 1980; Kollock, 1998), moral suasion (Dawes, 1980; Enke, 2019) and incentive cues (Edney, 1980; Ostrom, 1998) can shift choices toward cooperative outcomes by clarifying consequences and highlighting the mutual gains from restraint. In marketing, this includes plain-language disclosures and value-exchange messages (privacy), inclusive narratives and internal communication that reduce stereotype threat (DEI), public-health prompts that normalize protective behaviors (pandemic) and stewardship framing and eco-labels (climate). Communication is especially effective when observability is low to moderate and norm clarity is weak. That is, when stakeholders underestimate others' willingness to cooperate or the long-term payoffs of cooperation.

Regulation solutions. Regulatory solutions use formal authority to realign payoffs and constrain defection – through laws, platform rules, executive mandates, sanctions and rewards (Barry and Bateman, 1996; Platt, 1973). Prior research demonstrates that enforceable rules, centralized sanctions and credible punishment/reward schemes can curb noncooperation and accelerate resolution (Cross and Guyer, 1980; Kitts, 2006; Kosfeld et al., 2009; Ostrom, 1998; Platt, 1973). In marketing contexts, this spans carbon pricing and product standards (climate), capacity requirements and certification of safe operations (pandemic), audited consent and purpose-limitation rules (privacy) and top-management key performance indicators (KPIs) tied to DEI outcomes with independent assurance (DEI). Regulatory levers are most powerful when externalities are dispersed, reversibility is low and voluntary coordination stalls.

Group-structure solutions. Group-structure solutions redesign “the design, hierarchy, norms and interaction of the organization or of subunits within it” to raise cooperation (Barry and Bateman, 1996, p. 774). Mechanisms include strengthening shared identity, increasing discourse, trust and transparency and reducing social distance (Bohnet and Frey, 1999; He et al., 2017; Kramer and Brewer, 1984; Rydin and Pennington, 2001; Balliet and Van Lange, 2013; McCarter et al., 2011). For marketing, this translates into industry pledges and shared metrics (climate; DEI), consortia for standardized consent signals or data trusts (privacy) and local alliances that synchronize safety protocols and communications (pandemic). These solutions fit multi-stakeholder settings where repeated interaction, identifiability and credible monitoring sustain cooperation.

Strategic marketing solutions. Strategic marketing solutions are market-facing innovations – products, services, channels and experiences – that lower the private cost of cooperation or raise the private benefit of pro-social choices. They include developing green/circular offerings and defaults (climate), contactless and capacity-managed service formats (pandemic), privacy-preserving marketing technologies and consent-centric journeys that still perform (privacy) and inclusive product/experience design and supplier diversity embedded in sourcing (DEI). Beyond societal benefits, such investments can enhance legitimacy and reputation (Carroll and Shabana, 2010), reduce risk and cost (Wittneben et al., 2012), strengthen brands (Lindgreen and Swaen, 2010) and support superior performance and advantage when well executed (Ameer and Othman, 2012; Varadarajan, 2017). These levers are most effective where short-term versus long-term gaps are large and education alone is insufficient because they make the cooperative option competitive in the marketplace.

Together, these four solution families equip marketers with levers to address different types of social dilemmas. Specifically, communication shifts information and norms, regulation resets payoffs and enforceability, group-structure redesigns interaction structures and monitoring and strategic marketing changes the economics of cooperation. Table 3 summarizes how each family of solutions operates, when it works best and how it maps

across illustrative dilemmas. In the next section, we integrate these into a firm-level framework that maps dilemma attributes (e.g. observability, externality dispersion, short–long payoff gap) to recommended solution bundles and derives testable propositions for scholars and managers.

6. An integrative framework of marketing solutions for resolving social dilemmas

Marketing can move the needle on social dilemmas when it changes information, incentives, interaction structures and the economics of cooperation. Building on our review, we develop an integrative framework of antecedents, boundary conditions, attributes of marketing efforts that resolve social dilemmas, firm-level outcomes and broader downstream employee-, consumer- and society-level implications.

Highlighting the complexities and tradeoffs between choosing short-term personal interests and long-term collective benefits, [Figure 2](#) articulates antecedents that can positively or negatively influence marketing solutions. Our framework distinguishes antecedents that raise or lower the likelihood that firms deploy effective marketing solutions. Positive antecedents include a stronger orientation to collective interests, higher cooperative intent and commitment, value-based mobilization across networks and psychological ownership of collective benefits. Negative antecedents include a short-term self-interest focus, uncertainty and attributional ambiguity and a tendency to defect from collective action. Strengthening the positive and mitigating the negative increases the chance that firms move from intent to concrete solution attributes.

Identifying antecedents can provide insights into how firms approach and resolve firm-level social dilemmas because firms do not enter such dilemmas from a neutral starting point. Some firms interpret collective problems through a stakeholder-oriented lens that emphasizes shared welfare, interdependence and long-run value creation, whereas others approach the same problems more narrowly through an agency-oriented lens that prioritizes immediate self-interest, ambiguity reduction and defensive risk minimization ([Ioannou and Serafeim, 2015](#); [Mishra and Modi, 2016](#)). A collective-interest orientation directs attention to interdependence and the broader consequences of marketing choices, while cooperative intent and commitment increase willingness to incur near-term costs in support of longer-run joint gains ([Rashidi-Sabet et al., 2022](#)). Mobilization matters because collective solutions often require firms to activate partners, customers, employees and other stakeholders rather than act alone ([Ritvala and Salmi, 2010](#)). Psychological ownership is likewise important because actors are more likely to invest in stewardship when they perceive the collective good or shared resource as partly “theirs” to protect rather than as an external issue detached from their own identity or responsibilities ([Peck et al., 2021](#)).

By contrast, non-cooperative antecedents reduce substantive action because they make defection more privately attractive or cooperation less credible ([Wilkesmann et al., 2009](#)). A short-term self-interest focus privileges immediate gains in margin, convenience or flexibility over more diffuse future benefits ([Kosfeld et al., 2009](#)). Uncertainty and attributional ambiguity weaken cooperation by making it difficult to observe who is contributing, whether cooperation will matter and whether others are likely to reciprocate ([Raihani and Aitken, 2011](#)). Defection tendency captures the expectation that others may free-ride, renege or exploit the situation, which in turn makes minimal, symbolic or delayed actions more appealing than substantive investments ([Krishnan et al., 2021](#)). In this sense, the antecedent conditions in [Figure 2](#) do not simply describe firm attitudes; they shape whether firms are likely to pursue visible, durable solution bundles or settle for lower-commitment responses:

Table 3. Marketing taxonomy of solutions to firm-level social dilemmas

Solution category	What it is – key elements	Core mechanisms – description	When it works best	Climate change	Pandemic	Data privacy	DEI
Communication and norm activation	Information and education	Reduces misperceptions about outcomes and others' behavior; increases moral and identity congruence and strengthens trust so cooperation becomes preferable	Low-moderate observability; weak norm clarity; early coordination; misinformation or uncertainty about others' actions	Eco-labels, comparative impacts and stewardship narratives normalize low-carbon choice	Consistent in-venue messaging and public-health cues reduce ambiguity and boost cooperation	Plain-language consent and value exchange sustain trust and informed participation	Inclusive narratives and manager toolkits reduce stereotype threat and signal belonging
	Framing and narratives						
	Transparency and disclosures						
	Internal comms and training						
	Social proof and norms						
Regulation	Laws and platform rules	Changes costs/benefits of choices; locks in cooperation with enforceable commitments and adds credible oversight to deter defection	High free-rider risk; dispersed externalities; low reversibility; stalled voluntary coordination	Carbon pricing, product standards, EPR rules and retailer/industry mandates	Capacity limits, vaccination/mask requirements and safe-operations certification	Guardrails on tracking, audited consent and purpose limitation with enforcement	Targets with independent assurance; supplier diversity requirements; fair-pay audits tied to bonuses
	Executive mandates and KPIs						
	Sanctions and rewards						
	Third-party audits/certification						
	Coalitions and pledges	Increases group identification and visibility of actions, enabling credible commitments and collaborative solutions	Multi-stakeholder settings; uncertainty about others' behavior; need for interoperability	Cross-brand circularity coalitions; shared eco-metrics; retailer category rules	Local alliances synchronize protocols; data-sharing hubs with public health	Industry consent standards; data trusts; codes of conduct with oversight	Sector recruiting pipelines; cross-firm ERG networks; common reporting frameworks
Group-structure and governance	Shared standards/metrics						
	Smaller accountable units						
	Trust-building forums						
	Partner selection and visibility						
	Product/service redesign	Makes cooperative actions easier and more rewarding, closing the gap between short-run incentives and long-run value	Large short-term/long-term gaps; margin pressure; education alone is insufficient	Low-carbon/circular products at parity; green defaults; repair/return programs; adopt degrowth-aligned choices	Contactless and capacity-managed formats that preserve revenue while reducing risk	Privacy-preserving targeting, on-device modeling and consent-centric journeys that still perform	Accessible UX, inclusive design and supplier diversity embedded in assortment and sourcing
Strategic marketing	Channel/experience innovation						
	Default and choice architecture						
	Value proposition shifts						

- P1. Stronger cooperative antecedents (collective-interest orientation, cooperative intent/commitment, mobilization, psychological ownership) increase both the probability and depth of deploying solution bundles across the four families.
- P2. Stronger non-cooperative antecedents (short-term self-interest, uncertainty/attributional ambiguity, defection tendency) increase reliance on symbolic or minimal actions and reduce the likelihood of substantive solution bundles.

Second, we organize attributes of marketing efforts for resolving social dilemmas into four families that marketing can deploy: communication and norm activation, regulation, group-structure and governance and strategic marketing. Matching these attributes to dilemma conditions is essential. In settings where individual actions and outcomes are weakly observable, stakeholders often misread others' intentions and underestimate willingness to cooperate. In these cases, interventions that clarify payoffs and make cooperative behavior visible are most likely to shift choices (Kollock, 1998; Cabrera and Cabrera, 2002). When harms are widely dispersed and difficult to attribute, voluntary appeals struggle to sustain cooperation over time. Changing the payoff structure and adding credible verification become pivotal for maintaining adherence and signaling legitimacy (Barry and Bateman, 1996; McCarter *et al.*, 2011). Where interdependence is high and free-riding is salient, bilateral efforts break down. Cooperation improves when actors adopt shared standards, metrics and monitoring within a common governance arrangement (He *et al.*, 2017; Balliet and Van Lange, 2013). Finally, when the private, short-run returns to defection dominate the long-run collective benefits, information alone is insufficient. Redesigning offerings, defaults and journeys to lower the private cost of cooperation – and to keep performance at parity – makes pro-social choices competitive in the marketplace (Rashidi-Sabet and Madhavaram, 2022; Shultz and Holbrook, 1999).

The logic underlying these four families is comparative rather than merely classificatory. Communication and norm activation work by reducing misperceptions, making the consequences of action more cognitively available and signaling that cooperation is both expected and feasible (Edney, 1980; Kollock, 1998). Regulation works through formal rule structures that alter payoffs, restrict opportunism and create credible enforcement or verification (Kitts, 2006; Ostrom, 1998). Group-structure and governance work by reshaping the interaction context itself through shared standards, transparency, monitoring, repeated contact and collective accountability (Barry and Bateman, 1996; Shultz and Holbrook, 1999). Strategic marketing relies on a different mechanism because, rather than depending primarily on persuasion or sanctions, it changes the design of the offering, journey or exchange so that cooperation becomes easier, more attractive or less privately costly. The central implication is that different social dilemmas call for different dominant mechanisms because the source of failure differs across dilemmas.

This comparative mechanism logic also clarifies why the four families should not be treated as interchangeable. Where the core problem is poor observability and weak norm clarity, communication can shift beliefs and expectations more effectively than incentives alone (Agarwal *et al.*, 2010; Ostrom, 2012). When the effects of harmful behavior are widely dispersed and difficult to trace back to specific actors, communication alone is often not enough unless it is supported by formal rules and credible verification (Ostrom, 1998). When actors are highly interdependent and the risk of free riding remains high, governance arrangements built around shared standards and transparent metrics are more effective than isolated bilateral efforts (Kosfeld *et al.*, 2009). When the central obstacle is a large gap between private short-run incentives and collective long-run gains, the most durable solution is often to redesign the market offering or decision environment itself (Shultz and Nill, 2002):

- P3. When actions and outcomes are hard to observe and stakeholders misread others' intent, communication that clarifies payoffs and descriptive norms increases cooperative choice more than incentive-only interventions.
- P4. When harms are dispersed and attribution is difficult, regulation that redesigns payoffs and includes credible verification sustains cooperation better than communication alone and yields larger legitimacy gains.
- P5. When free-rider risk is high and cross-firm coordination is required, group-structure solutions that establish shared standards and transparent metrics outperform bilateral agreements on sustained cooperation.
- P6. When the short-term versus long-term payoff gap is large, strategic marketing that lowers the private cost of cooperation (e.g. defaults, redesigns or substitutes at parity) produces larger and more durable effects than communication alone.

Although P3–P6 are grounded in established social-dilemma theory and synthesized evidence across the reviewed literature, they should be interpreted as theoretically derived propositions rather than as conclusions based on accumulated, systematically compared evidence from empirical testing. The reviewed literature supports the logic that different dilemma conditions call for different dominant mechanisms, but direct comparative evidence remains limited regarding when one solution family consistently outperforms another across contexts.

The translation from cooperative intent to concrete solution attributes depends on organizational and market context. Firms with organizational slack and strong marketing capabilities are better able to translate intent into product, service and customer journey redesign (Feng *et al.*, 2017; Morgan, 2012). Indeed, organizational slack provides room to absorb experimentation, coordination costs and delayed returns, all of which matter when firms move from symbolic support to more substantive actions (Leonidou *et al.*, 2013). Such slack is especially important when firms must commit resources before financial or reputational returns are fully realized. Similarly, marketing capability – the firm's ability to sense the market, connect with stakeholders and respond through effective marketing strategies (Day, 1994) – matters because strategic marketing solutions often require firms to reconfigure offerings, communications, channels and stakeholder interfaces in ways that enable them to meet customer needs while also advancing collective goals (Madhavaram and Hunt, 2008; Mishra *et al.*, 2022).

Observability and measurement quality determine whether enforceable rules and governance arrangements are viable because verification makes both payoffs and compliance credible (Fonti *et al.*, 2017; Shultz and Holbrook, 1999). When relevant actions and outcomes are difficult to observe, attributions become noisy, opportunism is harder to detect and norms and sanctions are more difficult to administer effectively (Fonti *et al.*, 2017). Also, stronger measurement systems enhance the credibility of rules, standards and governance arrangements by making cooperative behavior visible, deviations traceable and progress verifiable over time (Shultz and Holbrook, 1999). In this way, observability and measurement systems strengthen the ability of firms to translate cooperative intent into regulation and governance attributes that stakeholders perceive as enforceable, legitimate and consequential.

Channel and platform power also shape the types of solution mechanisms firms can actually implement. Firms with greater power in a channel, platform or ecosystem are better positioned to impose standards, alter access conditions, require compliance and coordinate the behavior of other actors (Gielens *et al.*, 2018; Homburg *et al.*, 2020). In such settings, cooperative intent is more likely to be expressed through regulation-like attributes, such as rules, monitoring requirements, fees and participation standards, because powerful firms can attach consequences to compliance or noncompliance (Joseph and Thevaranjan, 1998;

Tienken *et al.*, 2023). By contrast, when power is more diffuse, firms are less able to impose enforceable conditions on others and are more likely to rely on communication, persuasion or voluntary coordination. Thus, channel or platform power does not simply strengthen cooperation in general; it shapes whether cooperative intent can be translated into governance mechanisms with real enforcement capacity under specific market conditions:

- P7. Organizational slack and marketing capability strengthen the translation from cooperative antecedents to strategic marketing attributes.
- P8. Higher observability and better measurement systems strengthen the move from cooperative antecedents to regulation and governance attributes.
- P9. When focal firms hold channel or platform power, cooperative antecedents more often yield regulation-like attributes (standards, fees, access rules).

The effects of different solution attributes on outcomes depend not only on the mechanism deployed but also on the conditions under which stakeholders evaluate that mechanism. In particular, credibility, assurance and salience shape whether marketing efforts are interpreted as meaningful, legitimate and worthy of response. Communication and norm-activation depend more heavily on message credibility and fit, whereas regulation and governance depend more on visible assurance and verification. Across all solution families, effects are also amplified when the underlying dilemma is salient and the associated harms are difficult to reverse.

Specifically, communication and norm-activation attributes are most effective when stakeholders perceive the message as credible, authentic and consistent with the firm's stated motives, reputation and prior actions (Forehand and Grier, 2003; Kapoor *et al.*, 2023). When communication fits the brand and aligns with the firm's credibility record, stakeholders are more likely to interpret the message as a genuine effort to encourage cooperation rather than as a symbolic or self-serving appeal (Du *et al.*, 2010; Nickerson *et al.*, 2022). Under such conditions, communication can strengthen trust, positive affect, purchase intent and employee engagement because it clarifies expectations and reinforces the perceived legitimacy of cooperative action.

Regulation and governance attributes generate stronger legitimacy and compliance outcomes when they are supported by credible assurance mechanisms such as independent verification, third-party monitoring and transparent standards, because these mechanisms make commitments visible, compliance traceable and accountability more credible to relevant stakeholders (Shultz and Holbrook, 1999; Gielens *et al.*, 2018). As such, these mechanisms reduce uncertainty about whether firms are actually adhering to the rules, standards or commitments they promote. In this sense, regulation and governance do not rely primarily on persuasion; they work by increasing accountability and by making compliance visible to relevant stakeholders (Tienken *et al.*, 2023). As a result, independently verified progress is more likely to strengthen legitimacy and sustain cooperative behavior over time.

Across all solution families, outcomes become stronger when the underlying dilemma is salient and the associated harms are difficult to reverse (Battaglini *et al.*, 2014; Kollock, 1998). Stakeholders respond more strongly when the problem is visible, consequential and perceived as having enduring effects, because these conditions increase attention to both action and inaction (Barry and Bateman, 1996; Platt, 1973). As salience rises and reversibility declines, firms' cooperative efforts become more meaningful to employees, consumers and other stakeholders, which amplifies their effects on firm-level and societal outcomes. Thus, even when firms deploy similar solution attributes, those attributes are likely to generate greater impact when the social dilemma is perceived as urgent, important and hard to undo:

- P10.* Communication and norm-activation attributes produce larger gains in reputation, purchase intent and employee engagement when messages fit the brand and credibility is established.
- P11.* Regulation and governance attributes deliver larger legitimacy and compliance outcomes with independent third-party verification.
- P12.* All attribute families yield larger firm and societal outcomes when the dilemma is salient and harms are hard to reverse.

Firm-level social dilemmas often require going beyond single-mechanism solutions because the barriers to cooperation are usually multiple and interdependent (Ostrom, 1998, 2012). Solution bundles therefore refer to purposeful combinations of communication and norm activation, regulation, group-structure and governance and strategic marketing that are deployed jointly or sequentially to address different features of the same dilemma (Rashidi-Sabet *et al.*, 2022). Communication helps clarify norms and make cooperative expectations salient (Kollock, 1998; Messick and Brewer, 1983). Regulation strengthens credibility by attaching rules, verification and consequences to commitments (Cross and Guyer, 1980; Kitts, 2006). Group-structure and governance help coordinate actors, establish shared standards and reduce persistent free-riding risk (Barry and Bateman, 1996; McCarter *et al.*, 2011). Strategic marketing, in turn, helps lower the private cost of cooperation by redesigning offerings, defaults or exchange conditions so that socially preferred behavior becomes easier to choose and sustain (Shultz and Nill, 2002; Rashidi-Sabet and Madhavaram, 2022).

The effectiveness of these bundles depends on their fit with the underlying attributes of the dilemma (Ostrom, 1998; Rashidi-Sabet *et al.*, 2022). Communication without governance may be dismissed as symbolic when stakeholders do not see credible follow-through (Forehand and Grier, 2003; Du *et al.*, 2010). Governance without strategic redesign may formalize commitments without changing behavior at scale when private incentives still favor defection (Kosfeld *et al.*, 2009; Shultz and Nill, 2002). Strategic redesign without communication may alter the choice environment but fail to generate understanding, legitimacy or stakeholder support (Du *et al.*, 2010; Kapoor *et al.*, 2023). When firms align complementary mechanisms with the structure of the dilemma, they are more likely to generate reinforcing effects across stakeholder groups and levels of analysis (McCarter *et al.*, 2011; Du *et al.*, 2010). In turn, these reinforcing effects increase the likelihood that collective problem-solving translates into reputation, legitimacy, brand value, employee engagement, consumer affect and stronger firm and societal outcomes (Agarwal *et al.*, 2010; Barnes *et al.*, 2011; Polzer, 2004):

- P13.* Firms that match solution bundles to dilemma attributes realize greater improvements in reputation, legitimacy and brand value, where these gains translate to performance via employee engagement and consumer affect.

Even though we delineate exemplar antecedents, attributes and consequences of marketing efforts for resolving social dilemmas in an integrative framework depicted in Figure 2, we recognize that this framework needs further conceptual and empirical examination. As such, we developed some exemplar research questions that can stimulate research into specific marketing solutions for social dilemmas (see Table 4).

6.1 Contributions to marketing theory

This research makes several contributions to marketing theory. First, consistent with Jaakkola's (2020) view of conceptual work, it synthesizes knowledge across social sciences

to build a firm-level conceptualization of social dilemmas and develops an integrative framework that marketers can use. The framework specifies antecedents that raise or lower cooperative intent, attributes of marketing efforts organized into four solution families, boundary conditions that shape both links, firm-level outcomes and broader downstream employee-, consumer- and society-level implications. It is applied and testable. We develop a set of propositions that map dilemma attributes to matched solution bundles and support explanation and prediction of how marketing can help resolve social dilemmas.

Second, this research directs attention to a substantive domain – marketing solutions for resolving social dilemmas – that has not yet received adequate attention (Yadav, 2010). Given the increasing attention to and calls for research into marketing’s contributions to society, our research provides directionality and foundations for how marketing can resolve social dilemmas. Specifically, we delineate diagnostic dilemma attributes and link them to marketing solution bundles and develop testable propositions that translate these mechanisms into research designs and managerial action. Importantly, these propositions also establish a theory-based agenda for future empirical inquiry. Specifically, P3–P6 provide a foundation for directly comparing communication and norm activation, regulation, group-structure and governance and strategic marketing solutions across different social dilemma conditions.

Third, Madhavaram (2023) articulates that research can contribute to theory development in four ways – concepts, foundational premises, classificational schemata and theories. In this research, we offer a firm-level conceptualization of social dilemmas that integrates short-run versus long-run tradeoffs with self-interest versus group-interest tensions; develop a marketing-centered taxonomy of solution families – communication and norm activation, regulation, group-structure and governance and strategic marketing; and propose an integrative theoretical framework that details antecedents, marketing solutions, boundary conditions and consequences and that is supported by propositions for empirical testing.

As such, we position our work as a mid-range theory formulation. There is no single, unified social dilemma theory nor a theory of the “social-dilemma-resolving firm.” Instead, discipline-specific streams emphasize different mechanisms and remedies. We integrate these strands into a marketing theory of social dilemma resolution that travels across multiple illustrative firm-level dilemmas – climate change, pandemic response, data privacy and DEI – while remaining general enough to guide other domains. The framework’s constructs and relationships are specified well enough to support cumulative testing and refinement.

6.2 Contributions to marketing practice

By specifying the drastic effects of large-scale social dilemmas that can severely hamper the functioning of marketing stakeholders (consumers, firms, governments and societies at large), this research contends that the long-term well-being of our societies relies on firms’ marketing strategies that contribute solutions to social dilemmas. Marketers can translate societal and environmental challenges into tractable design problems by diagnosing the attributes of the dilemma and matching them to appropriate marketing levers. Specifically, managers can assess observability of actions and outcomes, the dispersion and reversibility of externalities, the degree of interdependence and free-rider risk and the short-run versus long-run payoff gap. This diagnosis guides the selection of solution bundles from the four families – communication and norm activation, regulation, group-structure and governance and strategic marketing – so that interventions change information, incentives, interaction structures and the economics of cooperation in ways that fit the context. In categories where externalities are large and partly irreversible, managers may also adopt degrowth-aligned choices that shift value from volume to longevity and service (Lloveras et al., 2022).

Table 4. Taxonomy of marketing solutions and exemplar research questions

Marketing solutions	Research questions
Communication and norm activation	• Which message frames (risk, social proof, efficacy) most effectively convert intent to cooperative action across dilemmas with low observability? • Do public dashboards and descriptive-norm cues reduce misperceptions and free-riding more than incentive-only nudges? • When do brand–message fit and source credibility amplify the impact of communication and norm-activation on cooperative behavior in social dilemmas? • What channel mixes (owned, social, influencer, community) most efficiently reach hesitant segments in pandemic, privacy, DEI and climate contexts? • How can marketing/marketers educate customers, employees and other stakeholders to protect social and environmental values?
Regulation (payoffs and enforceability)	• Under dispersed irreversible externalities, which fee/standard/penalty designs maximize compliance while preserving customer value? • What co-regulation models (firm + regulator + NGO) accelerate adoption compared to unilateral firm rules? • In data privacy, which consent architectures (granular defaults, purpose limitation) best balance targeting yield and trust? • How do assurance signals (labels, trust seals) interact with price/promotions in driving uptake of compliant offers? • How can various industry associations facilitate marketing processes that allow firms to take bold actions and reduce their social and environmental impacts? • How can superordinate authorities (i.e., industry associations and policymakers) use marketing strategies to enhance the private sector’s involvement in reducing social and environmental impacts?
Group-structure and governance	• When coordination needs are high, do shared standards and transparent metrics outperform bilateral agreements on sustained cooperation? • Which pre-competitive alliances (e.g. shared measurement, pooled R&D, interoperable IDs) deliver the largest spillovers across climate, pandemic, privacy and DEI? • What forms of community co-creation (employee resource groups, citizen panels) improve monitoring and reduce social distance? • When do voluntary, cross-firm standards (via trade associations or consortiums) emerge and persist without a central enforcer and what minimal enforcement devices (e.g. third-party certification, shared metering, reciprocity rules) sustain cooperation over time? • Which governance designs for shared information (e.g. contribution thresholds, benefit-sharing rules, audit trails, sunset clauses) reduce free-riding and adverse selection while preserving privacy protections and equity goals across participants?
Strategic marketing	• When the short–long payoff gap is large, which product/service/journey redesigns most effectively lower the private cost of cooperation at parity performance? • Which defaults (privacy-protective settings, inclusive user experience patterns, low-carbon shipping) persist without backfire? • What circularity and durability moves (repair, take-back, modularity) raise retention while reducing footprint? • When do access-over-ownership and sufficiency/demarketing strategies outperform volume growth (e.g. categories with large, partly irreversible externalities)? • Which privacy-preserving technologies (on-device modeling, aggregated measurement) sustain campaign ROI while improving trust?

Applied correctly, this matching improves marketing efficiency and effectiveness while building reputation, legitimacy and brand value (Martín-de Castro, 2021; Sheth and Sinha, 2015). Credible action reduces consumer risk perceptions and raises purchase intent, and it strengthens employee identification, engagement and retention (Nickerson *et al.*, 2022; Shea and Hawn, 2019). Over time, these gains support competitive advantage and financial performance, aligning social impact with firm outcomes rather than treating them as competing objectives (Porter and Kramer, 2006). Because the framework is generalizable, the same logic applies across different types of social dilemmas – climate and sustainability initiatives, pandemic preparedness and response, data privacy programs and DEI efforts – with the specific bundle tailored to the diagnosed attributes.

Execution depends on boundary conditions. Slack and marketing capability determine whether firms can implement product, service and journey redesign at scale. Observability and measurement make enforcement credible where rules or access conditions are required. Channel or platform power shapes whether firms can set standards and fees or must rely more on communication to shift norms. Brand–message fit and independent assurance protect credibility when claims are material to stakeholders. Attending to these conditions raises the probability that solution bundles generate durable changes in behavior rather than symbolic signals. Therefore, our framework provides managers with insight into when to favor communication, regulation, group-structure or strategic marketing; guidance on how to bundle and stage these levers under prevailing constraints; safeguards to protect credibility (brand–message fit and independent assurance); and leading indicators to monitor so that behavior change reliably translates into firm and societal value.

6.3 Limitations and future research

This research has several limitations that also provide opportunities for future research. First, although the SLR followed transparent search, screening, coding and synthesis procedures, it did not use a formal second-coder protocol or calculate inter-coder reliability statistics. Consequently, the findings should be interpreted in light of this limitation. Future research could strengthen and extend our framework by using multiple coders to assess whether the diagnostic dilemma attributes, four marketing solution families, boundary conditions and propositions identified in this review are consistently interpreted and replicated across independent coding procedures.

Second, although the proposed framework and P3–P6 are grounded in established social-dilemma theory and synthesized evidence across the reviewed literature, direct comparative empirical evidence remains limited regarding when alternative marketing solution families are relatively more effective across different social dilemma conditions. Accordingly, future research should directly compare communication and norm activation, regulation, group-structure and governance and strategic marketing solutions across different contexts to refine and extend the proposed framework.

Finally, the review used a depth-first corpus of leading journals to support close, theory-aware synthesis across disciplines. Although this approach strengthened conceptual depth and quality, it may have underrepresented relevant insights from other sources. Future research could extend the evidence base by incorporating a broader range of sources and using complementary review methods, such as bibliometric analysis, meta-synthesis or meta-analysis. Such approaches could examine whether additional contexts introduce new dilemma attributes, marketing solution mechanisms or boundary conditions, thereby refining the scope and transferability of the proposed theory of firm-level social dilemma resolution.

7. Concluding remarks

Marketing – through appropriate solutions for resolving social dilemmas – can contribute to the long-term well-being of our societies. Therefore, we hope that this research lays the

foundations for developing insights into marketing strategies that can effectively help resolve social dilemmas. Such insights can be useful to both marketing practitioners and researchers. While practitioners can use this research as a starting point to develop marketing solutions with a more nuanced understanding of specific attributes of social dilemmas and appropriate solution bundles, marketing researchers can use this research as a foundation toward actualizing the potential of marketing for society.

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Note

- [1.] Elinor Ostrom received the 2009 Nobel Memorial Prize in Economic Sciences for her analysis of economic governance, especially the commons. Her work provides a cross disciplinary synthesis and standard vocabulary for collective action problems, which is why we align our keyword family with her terminology.

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Further reading

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Supplementary materials

The supplementary material for this article can be found online.

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