The role played by relational turbulence in managing agency problems among value chain partners in the sharing economy: A review of the antecedents, benefits, risks, and boundary conditions

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ABSTRACT

The purpose of this paper is to present a detailed theoretical review based on the "relational turbulence model," revealing current research gaps and demonstrating its applicability to the management of agency problems among value chain partners by using antecedents, benefits, risks, and boundary conditions. "Relational turbulence theory" proposes a communication perspective on interpersonal relationships that explains how relationship transitions polarize emotions and cognitive assessments, disrupting partner communication in the sharing economy. Relational turbulence theory has recently gained traction in value chain literature in relation to the management of agency problems between partners within the sharing economy context; however, there is a surprising lack of agreement on the antecedents, benefits, risks, and boundary conditions of such relationships. To address this gap, we reviewed 52 peer-reviewed publications published between 2011 and 2021. Furthermore, this paper reveals the current research gaps and future research topics by recommending the application of relational turbulence theory with respect to antecedents, benefits, risks, and boundary conditions in the management of agency problems among value chain partners.

1. Introduction

The implications of the sharing economy for marketing theory and practice, based on relationship improvement platforms, remain ambiguous in the literature (Goodboy, Dillow, Knoster, & Howard, 2021; Jones & Theiss, 2021). An economic model of the sharing economy characterizes it as an activity that involves acquiring, providing, or sharing access to goods and services among peers through community-based online platforms (Goodboy et al., 2021; Jones & Theiss, 2021; Jones, Yoon, Theiss, Austin, & Lee, 2021; Sigala, 2018). Our review also highlighted that, while the "relational turbulence model" can provide benefits, it can also pose threats in managing any agency problems between partners in the value chain, implying a "double-edged sword" effect by exhibiting a variety of benefits followed by primary level and support value activities. However, these benefits can vary as a function of several boundary conditions. In light of the emergence of the sharing

economy over the past decade, an array of studies have been conducted, both within and outside the marketing discipline, on topics pertaining to the relational turbulence perspective (Goodboy et al., 2021; Jones et al., 2021; Jones & Theiss, 2021). We aimed to enrich and extend prior research conducted in this area by exploring the sharing economy's disruptive potential for traditional marketing beliefs and practices (Goodboy et al., 2021; Jones et al., 2021; Jones & Theiss, 2021). In this study we broadly define the sharing economy and identify its key characteristics—access, rather than ownership—that challenge the existing marketing concepts. According to the literature on value chains, sharing economy is deeply rooted in the concept of resource ownership based on relationship improvement platforms (Brisini, Solomon, & Nussbaum, 2018; Chaperon & Bramwell, 2013; Durach, Kembro, & Wieland, 2017; Goodboy et al., 2021; Jones et al., 2021; Jones & Theiss, 2021).

In various literatures, lower costs and increased accessibility are

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often cited as reasons for the rapid growth of the sharing economy (Eckhardt et al., 2019; Kumar, Lahiri, & Dogan, 2018). A large percentage of sharing economy transactions are also mediated by online relationship improvement platforms that facilitate the efficient matching (or connecting) of users and providers (Brisini et al., 2018; Durach et al., 2017; Goodboy et al., 2021; Jones et al., 2021). It appears that information technology (IT) will continue to dominate explanations of the sharing economy, whether in the mobility platform ecosystem context or the food sharing, redistribution, and waste reduction model (Harvey, Smith, Goulding, & Illodo, 2020). Despite their popularity in business-to-consumer contexts, traditional marketing concepts such as value co-creation have yet to find a place in the co-creation of business-to-business (B2B) service ecosystems (Hein et al., 2019). Appropriate management of agency problems among value chain partners has been identified as an underexplored area (Bacon, Sundstrom, Stewart, Maurer, & Kelley, 2021; Butkouskaya, Llonch-Andreu, & Alarcón-Del-Amo, 2021; Goodboy et al., 2021; Jones et al., 2021; Kalibwani et al., 2018).

2. The applicability of relational turbulence theory to the management of agency problems

Agency problems are managed differently in large-scale organizations because, when every group of publicly-listed and private enterprises is managed by a family, which is the case in most countries, the resulting greater managerial ownership does not necessarily alleviate agency problems (Berrone, Cruz, & Gomez-Mejia, 2012). Consequently, managers in such systems serve in the interest of the ruling family, not shareholders in general (Berrone et al., 2012). Families can stifle innovation in one enterprise in order to safeguard their outdated investments in another and avoid "creative self-destruction" (Berrone et al., 2012). Similarly, the relationship between a company's headquarters and its branches is frequently fraught with significant issues that may harm performance (Berrone et al., 2012; Gaur, Vasudevan, & Gaur, 2011; Green Jr, Whitten, & Inman, 2012; Gunasekaran et al., 2017). Tension between the headquarters and branches is prevalent in organizations characterized by the extensive decentralization and delegation of the decision-making authority—large, diversified enterprises and multinational corporations (Bicen, Hunt, & Madhavaram, 2021; Jensen & Meckling, 1995). Whether subsidiaries will adhere to the corporate goals or use their delegated power to engage in bad practices for their own gain remains unclear (Bicen et al., 2021; Butkouskaya et al., 2021; Cadogan, Sundqvist, Puumalainen, & Salminen, 2012).

Relational turbulence refers to the communication of personal relationships in which transitions polarize emotions and cognitive assessments, disrupting communication between partners (Goodboy et al., 2021). The relational turbulence model was developed based on data showing that any move from casual to serious participation in dating relationships is accompanied by an increase in turbulence (Jones & Theiss, 2021; Knobloch, Mcaninch, Abendschein, Ebata, & Mcglaughlin, 2016; Knobloch, Nichols, & Martindale-Adams, 2020). Conflict is more common, negative feelings are more frequently elicited and severe, and relational thinking is heightened (for a description, see the evolution of the theory in Solomon, Weber, & Steuber, 2010). The relational turbulence model was first developed (Solomon & Knobloch, 2004) based on two fundamental assumptions (Jones & Theiss, 2021; Knobloch et al., 2016; Knobloch et al., 2020). First, communication is impacted by relational turbulence in personal relationships, which polarizes emotions and cognitive assessments during transitions. This includes communication between partners (Miller & Steinberg, 1975) being disrupted in an effort to reach an agreement on the nature of the relationship (Berger & Bradac, 1982), regulate feelings of emotional attachment (Braiker & Kelley, 1979), and coordinate patterns of resource exchange for courtships to progress beyond casual dating (Kelley & Thibaut, 1978).

Second, although such difficulties are consistent in partnerships

(Fairhurst, 2008), when applying a relational turbulence model to those in the sharing economy, the transition from independence to attachment is a critical period in which any individuated conceptions of self and other are replaced by more dyadic orientations (Aron, Norman, & Aron, 2001; L. Knobloch & Carpenter-Theune, 2004). As a foundation of relational turbulence, relational uncertainty refers to the level of confidence people have in their perceptions of their involvement in interpersonal relationships (Knobloch & Solomon, 2002). Berger and Bradac (1982) defined relational uncertainty as a concept that encompasses three interconnected but distinct sources of ambiguity. In a relationship, self-uncertainty refers to any concerns held about one's own involvement, while partner uncertainty refers to concerns about the partner's involvement (Goodboy et al., 2021; Jones & Theiss, 2021; Knobloch et al., 2016; Knobloch et al., 2020). Relationship uncertainty exists at a higher level of abstraction than that of self or partner uncertainty since it embodies any ambiguity about the dyad as a whole (Berger & Bradac, 1982). Although partners can be uncertain about the nature of involvement at any point in a relationship's trajectory, this theory proposes that self, partner, and relationship uncertainty may contribute to the challenges associated with the transition from casual dating to serious involvement.

It is therefore necessary to develop a theoretical framework of social relationships in order to evaluate the agency problems that occur among partners in the value chain in real-world organizations (Côrte-Real, Oliveira, & Ruivo, 2017; Cousins & Spekman, 2003; Danneels & Sethi, 2011). Consequently, the primary purpose of our review was to synthesize the existing literature on "relational turbulence theory" research into an integrative framework pertaining to the management of agency problems among value chain partners with regard to antecedents, benefits, hazards, and boundary conditions (Côrte-Real et al., 2017; Danneels & Sethi, 2011; Ellram & Murfield, 2019). This led us to formulate the first research question.

RQ1: What are the antecedents, benefits, hazards, and boundary conditions pertaining to the management of any agency problems among value chain partners?

Our second goal was to identify research gaps and propose related important future research areas. To identify relevant high-quality research work on the application of the "relational turbulence theory" concept, we conducted a theoretical framework based review (Tranfield, Denyer, & Smart, 2003) that involved a snowballing sampling search (backwards and forwards). We identified 52 papers published in peer-reviewed scientific journals between 2011 and 2021. We then analyzed the selected publications to provide a profile of the "relational turbulence theory" research applied to value chain partners in terms of publishing trends, methodological approaches, research viewpoints (single or dyadic perspective), and relationship dimensions. We then analyzed the literature thematically under the four primary themes of antecedents, benefits, risks, and boundary conditions. Our review thus contributes to the agency problems and value chain literature in two ways. First, it examines and categorizes the antecedents, advantages, hazards, and boundary conditions of relationship turbulence in relation to agency problems, which were then combined into an integrative framework suited to explain the existing state of the knowledge and to serve as a foundation for future research. Second, by identifying the current research gaps and suggesting several significant research paths, it provides the groundwork for future investigation.

The development literature is increasingly examining how businesses, consumers, celebrities, philanthropic organizations, diaspora groups, and the elite are new actors and enact new development partnerships beyond those that exist among "traditional" aid actors like governments, international organizations, and NGOs (Bacon et al., 2021; Ibáñez, 2021; Richey & Ponte, 2021; Villarán, 2020). The relationships (friendships, etc.) struck among the managers involved in the procurement and supply business provide one of the strongest foundations for close cooperation among partner companies (Amato, Basco, & Lattanzi, 2022; Cousins & Spekman, 2003). Personal

relationships (i.e., friendships) have been the subject of much research in the area of business, with most of the literature focusing on positive and negative corporate results (Amato et al., 2022; Richey & Ponte, 2021). However, scientific research has yet to resolve any disputes that may arise between managers and their respective companies in the presence of personal connections between purchasing managers and supply companies in the supply chain (Bicen et al., 2021; Goodboy et al., 2021; Goodboy, Bolkan, Sharabi, Myers, & Baker, 2020; Jones & Theiss, 2021). While problems with agencies are inevitable in the relationships between purchasers and providers, there is increasing focus on how purchasers can overcome such problems by applying human psychology principles (Brisini et al., 2018; Cho, Lee, Ahn, & Hwang, 2012; Ellram & Murfield, 2019). Strong personal relationships among executives are essential for those companies that seek to remain competitive on the global market (Cousins & Spekman, 2003; Patrucco, Moretto, & Knight, 2021).

This led to the formulation of the second research question.

RQ2: What are the research gaps in relation to the management of any agency problems among value chain partners on the basis of the relational turbulence concept?

These two research questions can be further justified based on the recent related literature as follows. Solomon (2016) provided an update and extension of the relational turbulence model. Furthermore, several authors have suggested that interpersonal dynamics influence the level of support or resistance provided by partners following a reunion (Sigala, 2018; Solomon, 2016; Solomon & Theiss, 2010). The purpose of our review is to test a central premise of the theory, which positions relational turbulence as a mechanism through which relationship parameters can influence the perceptions of any support provided by a partner (Ndubisi, Dayan, Yeniaras, & Al-hawari, 2020; Sigala, 2018; Solomon, 2016).

2.1. Research gap 1: Agency problems among value chain partners

Our review shows that partner influence can assume different forms depending on the context and type of relationship. As an example, military personnel returning from deployment and their partners may experience issues related to loss of privacy and diminished independence (Knobloch & Theiss, 2011). Additionally, couples coping with depression may encounter problems curbing behaviors (Goodboy et al., 2020; Knobloch & Theiss, 2011) that may compromise their health or safety (Knobloch et al., 2020), while adult children of recently divorced parents may face challenges in maintaining their relationships with them (Mikucki-Enyart, Wilder, & Barber, 2017). However, the application to agency management among value chain partners remains unexamined as most of the studies focused on personal relationships, which ignore firm-specific relationships such as partnerships (Bicen et al., 2021; Goodboy et al., 2020; Goodboy et al., 2021; Jones & Theiss, 2021).

Every company has its own set of long- and short-term goals and objectives. Furthermore, it is important to bear in mind that the objectives of managers may or may not coincide with those of investors (Kim, Choi, & Skilton, 2015). The managers of an organization may have goals linked to maximizing personal benefits, whereas investors are most likely interested in increasing their wealth (Kim et al., 2015; Kwak, Seo, & Mason, 2018). The conflict between such diverging goals and objectives is a common source of agency difficulties (Kwak et al., 2018).

Suppliers may not be as attentive as they should to their buyers' requests, or they may purposely slow down the distribution of information to their customers over time (Cousins & Spekman, 2003; Durach et al., 2017; Ellram & Murfield, 2019). Kim and Choi (2015) noted that Apple and Boeing are witnessing signs of deterioration in their long-standing relationships with their respective cooperative suppliers. Among the reasons for the persistence of tension is that the buyer's efforts are completely focused on the relationship (Berghman, Matthyssens, & Vandenbempt, 2012; Choi et al., 2021). Specifically, any effort made by

a buyer to resolve a problem with a supplier rarely extends beyond the buyer–supplier relationship (Kim & Choi, 2015).

It is not uncommon for large corporations to have abundant stockholders (Brito & Miguel, 2017; Kwak et al., 2018), and the separation of ownership and management is important for an organization (Brito & Miguel, 2017; Jajja, Kannan, Brah, & Hassan, 2017), which is associated with numerous benefits. It does not affect ordinary business operations and enables the hiring of professionals to carry out the company's essential functions (Jajja et al., 2017). The inclusion of outsiders, however, may pose issues for stakeholders (Yan, Yang, & Dooley, 2017). The management may make unwise choices or even misappropriate shareholder funds, resulting in conflicts of interest and, consequently, agency problems (Villarán, 2020; Yan et al., 2017). Another explicit issue linked to the management of agency problems among value chain partners is that stockholders may wish to engage in risky endeavors to increase earnings, but the greater risk involved may raise the rates applied to the company's debt, lowering the overall value of any pending loans in the sharing economy (Al-Qatanani & Siam, 2021; Ertugrul & Hegde, 2008; Lumapow, 2018). If the project fails, investors and creditors will allegedly be forced to share in the losses, which may lead to agency issues with them (Berrone et al., 2012; Bicen et al., 2021; Côrte-Real et al., 2017). Similarly, some company stakeholders may have competing interests with those of others such as consumers, employees, society, and communities in the sharing economy (Berrone et al., 2012; Bicen et al., 2021; Côrte-Real et al., 2017). Employees, for example, may demand a salary raise, which, if denied, may result in agency difficulties in the sharing economy (Al-Qatanani & Siam, 2021; Kim et al., 2015; Kumar et al., 2018; Miller & Steinberg, 1975; Mueller, 2021). Stockholders and company managers can resolve any agency issues in the sharing economy by offering stock packages or commissions to soften the management's actions and their effects on shareholders (Kaal, 2021). As part of conflict resolution processes, companies can provide incentives for good performance and behaviors while penalizing bad ones (Cousins & Spekman, 2003; Kelley & Thibaut, 1978; Kummer, Herold, Dobrovnik, Mikl, & Schäfer, 2020). Therefore, we now discuss an applicable theory that emphasizes how relationship transitions disrupt partner dialogue by polarizing emotions and cognitive assessments.

2.2. Research gap 2: The applicability of relational turbulence theory to partnerships in the sharing economy

The principle of ambiguity and the influence of relational partners are central to this theory during times of relational transition (Solomon & Knobloch, 2004). Communication between spouses becomes increasingly important as couples adapt to changing circumstances and roles (Solomon & Knobloch, 2004). Any change in the environment during transitions may elicit relational turbulence or a sense of vulnerability (Solomon, 2016). Partners' words and behaviors become more important to people when they are in turbulent relationships (Knobloch et al., 2016). Individuals experiencing relationship instability are more likely to perceive their partners' and social network members' actions as burdensome and their partners' behaviors as purposely harmful (Knobloch & Domovan-Kicken, 2006).

Any increase in negative emotions such as anger, fear, sadness, and jealousy is a sign of turbulence (Knobloch & Domovan-Kicken, 2006). This makes relationship communication more challenging and increases the chance of indirect communication or issue avoidance in couples (Fayezi, O'Loughlin, & Zutshi, 2012; Goodboy et al., 2021; Jones & Theiss, 2021; Knobloch et al., 2016; Knobloch et al., 2020). During a relationship transition, people's perceptions of the connection can change in two ways (Solomon & Theiss, 2010). First, due to the uncertainty caused by the transition, relational partners may find it challenging to interpret specific communicative relationship interactions (Zafari, Biggemann, & Garry, 2020). This results in more intense emotional reactions to partners' behaviors and more indirect communication (Knobloch & Domovan-Kicken, 2006; Solomon, 2016). Second,

relationship transitions can cause people to become more aware of their partners' influence on their everyday activities and routines (Solomon et al., 2010; Solomon & Knobloch, 2004).

We organize the remainder of the paper as follows. In the next section, we discuss the issues between value chain partners in a detailed manner. In Section 4, we present our review methodology, while Section 5 outlines the findings of our descriptive analysis and the antecedents, benefits, risks, and boundary conditions of the relational turbulence concept. In Section 6, we outline important future research directions, and conclude the paper by outlining its theoretical and managerial implications, followed by its limitations in Section 7.

3. Review methodology

As opposed to a narrative review (Tranfield et al., 2003), a systematic literature review provides a transparent and repeatable synthesis of the current knowledge (Rousseau, Manning, & Denyer, 2008). According to Tranfield et al. (2003), a SLR approach involves three key steps: planning, executing, and reporting. In the introduction section, we discussed the significance and urgency of consolidating the current information pertaining to the relational turbulence concept with regard to the management of agency problems among value chain partners. When considering the execution of such consolidation, we aimed at identifying future related research areas by means of the relational turbulence concept. We analyzed the current literature across a variety of databases—Google Scholar, Emerald, ProQuest, and Science Direct—using the "Publish or Perish" software. The purpose of our review was to categorize future research perspectives based on the four major areas of antecedents, benefits, risks, and boundary conditions. Accordingly, we focused on peer-reviewed scientific studies published between 2011 and 2021. This is justified by precedents of reviews focused on periods spanning only ten years, with findings that suggest adequately comprehensive assessments of the topics under study (Devaux, Torero, Donovan, & Horton, 2018; Racine et al., 2012). We outline the initial samples yielded by the various databases in Table 1.

We limited our search to peer-reviewed studies published in English and used a variety of keywords including "value chain relational turbulence in the sharing economy"; "relational turbulence model in business research in the sharing economy"; "the relational turbulence concept and managing agency issues in the sharing economy"; "the relational turbulence model and value chains in the sharing economy"; "relational turbulence theory and the management of agency problems"; and "relational turbulence theory and value chain activities." Our search initially yielded 1146 studies, some of which we did not consider for further review given their out-of-scope issues. For instance, some studies were focused on relational turbulence theory in relation to domestic relationships. In addition, we excluded 892 papers from the process by eliminating any duplicate documents and reviewing the initial sample's scope and contribution. This enabled us to classify the remaining 254 articles as appropriate for further examination. Table 2 shows our inclusion and exclusion criteria. This method can be further justified based on previous reviews having followed the same methodology (Abelha, Fernandes, Mesquita, Seabra, & Ferreira-Oliveira, 2020; Alghababsheh & Gallear, 2020; Tukamuhabwa, Mutebi, & Isabirye, 2021).

To ensure quality, we also only included papers published in highly-ranked journals. We therefore only considered journals with scores of A

Table 1
Initial sample yielded by the database searches.

Database	Number of Articles
Google Scholar	168
Emerald	420
Scopus	120
Crossref	438
Total	1146

Table 2
Criteria for inclusion and exclusion.

Inclusion criteria	Exclusion criteria
Scope and contribution: Focused on the management of agency issues in the sharing economy Published between 2011 and 2021 Focused on a firm's value chain in the partnerships/agency problems/sharing economy context. Having contributed to the literatures on firm value chains and on the management of the agency issues in the sharing economy	Scope and contribution: Not focused on the management of agency issues Not published between 2011 and 2021 Not focused on firm's value chain in the partnerships/agency problems/sharing economy context. Having made no contribution to the literature on firm value chains and on the management of the agency issues in the sharing economy

or higher in the Australian Business Deans Council (ABDC) list, and scores of Q3 or higher in the SCImago Journal & Country ranking. Besides these rankings, we also considered the contribution made by a paper to several studies, as this topic is still under-researched. Consequently, we eliminated 202 papers from the review process, with a final sample of 52 studies. Fig. 1 further demonstrates the inclusion and exclusion criteria of the review.

Following the guidelines laid out by Tranfield et al. (2003), we reported and distributed the findings in two sets. The first section of the paper presents a broad-ranging analysis of the existing literature, categorized according to publication trends over time, methodological approaches, research perspectives (single or dyadic), and relationship turbulence dimensions. The second section of the paper is devoted to identifying the antecedents, benefits, risks, and boundary conditions of relationship turbulence in the management of agency problems among partners in the value chain research. Accordingly, a thematic review of the literature was performed in the second section.

4. Analysis and findings

This section presents the descriptive findings of the characteristics of relationship turbulence in the management of agency problems (Refer Table 3 in the Appendix). It will provide an overview of these characteristics, including their classification based on the related literature.

4.1. Distribution of publications among journals

The final sample of 52 articles was distributed across various top peer-reviewed journals. Table 4 illustrates such distribution.

4.2. Publication trends overtime

Our review showed a consistent growth, between 2014 and 2020, in the number of publications dealing with the antecedents, benefits, risks, and boundary conditions of relationship turbulence theory in relation to the management of value chain agency problems (Fig. 2). Following a steady but limited production of papers from 2014 to 2015, we witnessed a slow growth in research over the years 2016 to 2021. In 2012, the research had reached its peak and there was a decline in interest between 2012 and 2014.

4.3. Distribution of publications based on research method

This section presents an analysis of the selected studies based on the data collection method. We highlighted seven different research methodologies found in the sample articles (Fig. 3).

Most of our sample studies (48%) had taken a survey approach to collect data. Interviews (16%) and questionnaires (10%) were identified as the next most widely used data collection techniques. The next section
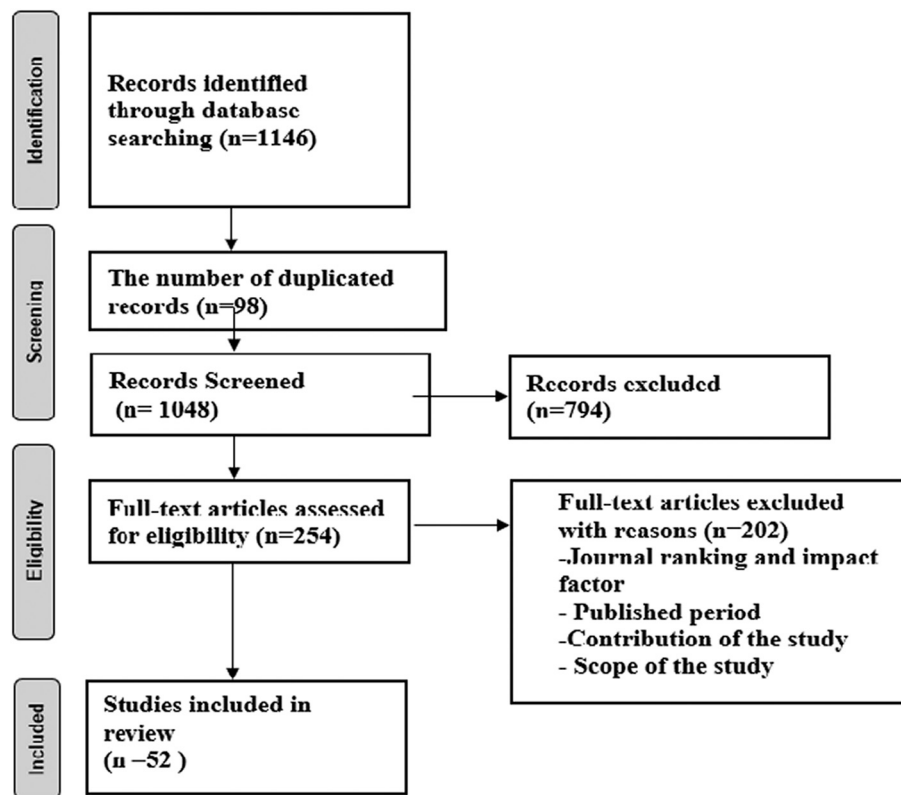
Fig. 1. Flow chart of the literature search process.

Table 4
Distribution of articles published in top journals.

Journal Name with ABDC-2019 Ranking	No of publications
Journal of Business Research	5
Journal of the Academy of Marketing Science	3
Industrial Marketing Management	8
European Journal of Marketing	2
World Development	2
Academy of Management Review	2
Annals of tourism research	1
Decision support systems	1
Journal of Marketing Communications	1
Others	24

elaborates the research dimensions identified through the review as follows.

4.4. Relational turbulence theory dimensions in managing agency problems among value chain partners

The data were collected to determine the level of relationship turbulence embodied in the partnerships. Our 52 sample studies were divided into two categories: single-side perspectives (buyer or supplier) and dyadic ones (buyer and supplier). Overall, 30 studies (58%) were found to have taken the single-sided perspective, and the remaining 22 (42%) the dyadic one. Research conducted from the dyadic perspective is scarce since it is difficult to obtain valid and reliable data from more than one side of a relationship, and analyze and present data from
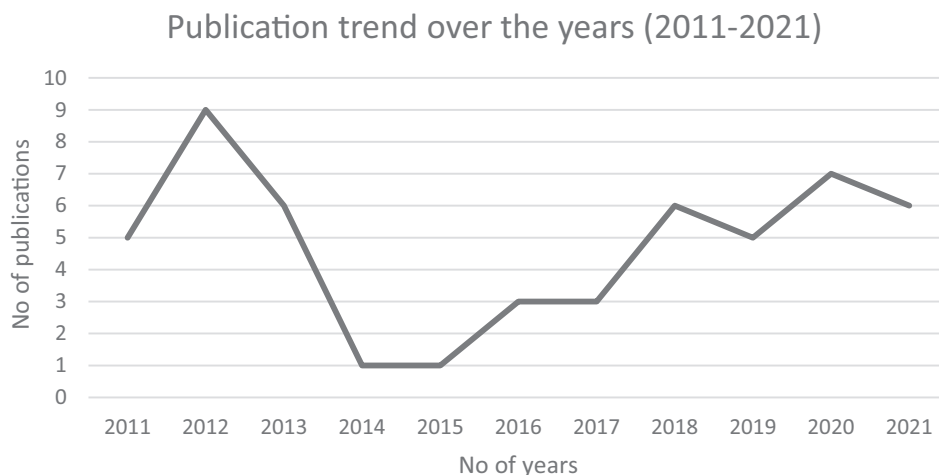

Fig. 2. Distribution of the research on relationship turbulence and the management of agency issues over the review period.
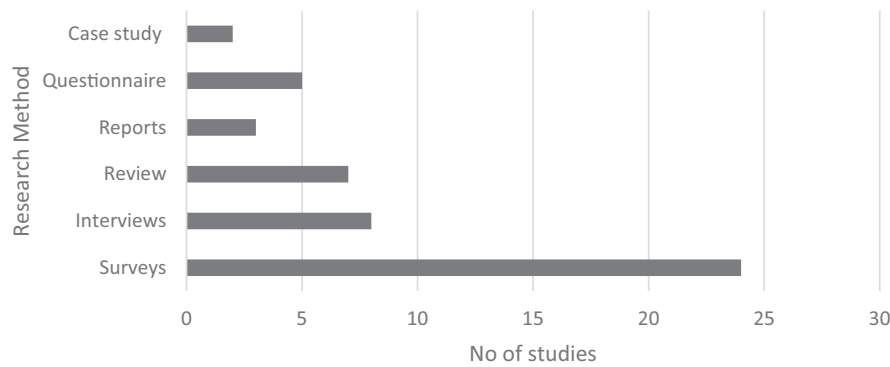
Fig. 3. Distribution of the papers in terms of research method.

paired/grouped relationships (Durach et al., 2017). Although collecting data from a single side of the relational turbulence model has been useful in furthering the theory of relational turbulence in the pertinent literature, the validity of any research conclusions may be limited by the fact that they are the result of attempts to capture a dyadic construct—which, in practice, is developed and shared by two parties—from the perspective of only one of them (Wagner & Bode, 2014; Whipple, Wiedmer, Boyer, & K., 2015). A dyadic idea is a collection of characteristics or events that are shared by and include several stakeholders (buyers, suppliers, etc.) (Ndubisi et al., 2020; Tatoglu et al., 2020; Whipple et al., 2015). Research focused exclusively on a buyer's partnership or relationship with a supplier may not be appropriate as the perceptions of the parties involved may differ. Any discrepancies between the customer and supplier viewpoints on relationship turbulence may cause tension in the collaboration (Ndubisi et al., 2020; Whipple et al., 2015). In order to improve our current understanding of how and why one partner's perception of the agency may differ from that of another, future research could take a dyadic perspective approach.

Fig. 4 illustrates the cumulative frequency of the two different relationship turbulence dimensions.

It was clear that the relationship turbulence concept had been the focus of the highest number of single side perceptive studies published during 2020 and 2021, with the highest number of dyadic perspective studies having been published in 2012. To provide further insights into the relationship turbulence dimension, as found in the reviewed studies, we converted it into a more holistic model, thus facilitating the examination of the relative and unique importance of each dimension related

to antecedents, benefits, risks, and boundary conditions.

5. The relational turbulence model: Antecedents, benefits, risks, and boundary conditions in the management of agency problems among value chain partners

In general, we found that most of the publications had focused on the benefits of the model, paying limited attention to the antecedents, risks, and boundary requirements. Furthermore, in the Appendix, Table A contains a classification of the 52 papers included in this evaluation according to these four aspects.

5.1. The antedecents of relational turbulence

Relationship turbulence theory proposes that the transition from casual involvement to serious commitment constitutes a period of relationship development that is marked by instability and extreme reactions to interpersonal events (Jones & Theiss, 2021). During this transition, relationships may experience a variety of tumultuous experiences—relational turbulence (Goodboy et al., 2021)—which are characterized by intensified emotional, cognitive, and communicative reactions that lead to relationship antecedents (Goodboy et al., 2021; Jones & Theiss, 2021). We identified two main sub-categories of antedecents at the intrafirm and relationship levels that contribute to the development of relational turbulence (Theiss & Nagy, 2013; Wagner & Bode, 2014; Whipple et al., 2015). Intrafirm antecedents exist within the internal environment of a business organization, with either the
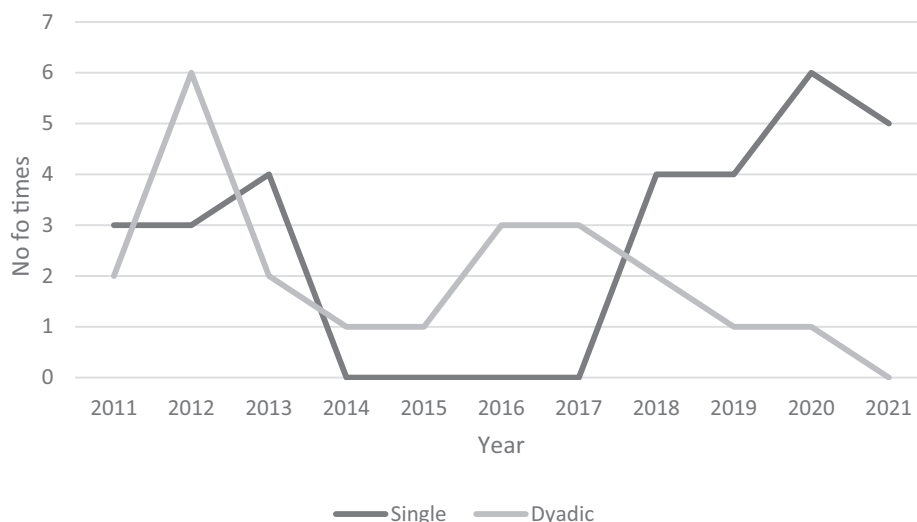

Fig. 4. Cumulative frequency of relationship turbulence research by dimensions.

customer or the supplier playing a vital role. Conversely, relationship antecedents are those that appear in the connection between the buyer and the supplier (Theiss & Nagy, 2013; Tsai, Chou, & Kuo, 2008; Tsai & Yang, 2013; Wagner & Bode, 2014; Whipple et al., 2015).

5.1.1. Intrafirm antedecents

In a buyer–supplier dyad, the process of maintaining a partnership with agency appears to begin with the establishment of the required preconditions in the partners' internal environment (Fayezi et al., 2012; Mitchell, Weaver, Agle, Bailey, & Carlson, 2016; Yang, 2016). Wang, Dou, Zhu, and Zhou (2015) suggested that the three dimensions of innovation, information, and relational capabilities positively influence the effectiveness of external collaboration, which in turn contributes to a firm's market and financial performance. The important interfirm collaboration, as the process of developing a proper agency relationship or partnership, appears to commence by creating the necessary preconditions in the internal environment of the collaborators (Mustakallio, Autio, & Zahra, 2002). In family firms, formal and social control influence decision-making quality (Mustakallio et al., 2002). In cross-cultural contexts, Voss and Kock (2013) found a considerable link between relationship value and project portfolio success, with portfolio interdependency, portfolio size, and technology turbulence acting as moderators. This was further justified by Mangus, Jones, Folse, and Sridhar (2020), who investigated the impact of both business and personal trust on relationship performance—customer satisfaction and loyalty. The interaction between geographic search and business model innovation is further moderated by entrepreneurial values (Pratono & Mahmood, 2014), operational governance under trust and commitment (Bicen et al., 2021), audience management tactics (Zhang, Shi, Guo, Chen, & Piao, 2021), interdependent governmental networking, and environmental turbulence (Bao, Wang, & Tao, 2020). Within these intrafirm factors, employee resilience appears to moderate the association between market instability and service innovation (Senbeto & Hon, 2020).

5.1.2. Relational antecedents

Relational antecedents relate to relational content, behaviors, and social cognitive characteristics (Goodboy et al., 2021; Jones & Theiss, 2021). According to Solomon and Theiss (2010), individual growth, interpersonal development, and external conditions are the factors that can affect close relationships. Owing to diversified expectations in relation to norms, respect, and ethical values, external influences—elderly partners or economic hardships—can alter the social framework within which romantic unions occur, causing relationships to shift (Solomon & Theiss, 2010).

Additionally, Voss and Kock (2013) identified that the administration of a project portfolio and its related customer relationship portfolio necessitates a connection between portfolio and relationship management, highlighting the importance of relationship value both enjoyed and generated by the customer. The presence and significance of two types of interpersonal trust—business and personal—in salesperson–customer relationships were identified through a theoretical review and empirical enquiry (Mangus et al., 2020), with each type of trust contributing differently to performance. Furthermore, organizational agility is another relational antedecent, as Còrte-Real et al. (2017) found that big data analysis can add value at multiple points along the value chain. Through knowledge management and its impact on processes and competitive advantage, big data analysis can help organizations become more agile (Còrte-Real et al., 2017). A number of factors contribute to organizational agility, including market conditions, customer requirements, organizational structures, markets, customers, learning orientations, organizational practices, and dynamic capabilities (Kanani., 2016). Moreover, Nagy and Theiss (2013) identified four distinct themes of relational uncertainty: new roles and identities, dependency anxiety, love and intimacy, and maturation. The relational turbulence model has been used to identify the challenges that married couples frequently face as they move into the empty-nest period of their marriage (Nagy & Theiss, 2013). In relation to the management of agency problems among value chain partners, this concept can be used to change the latter's psychological mindsets by briefly limiting the activities conducted in a supply chain (Nagy & Theiss, 2013).

By emphasizing the importance of relationship value both enjoyed and generated by customers, the relationship turbulence model extends the firm-based approach to the management of agency problems among value chain partners. In salesperson–customer relationships, two types of interpersonal trust are identified and differently related to performance (Mangus et al., 2020). This is especially crucial because conscious management necessitates continuous sense-making, interpretation, and verification of clues (Zafari et al., 2020; Zhang et al., 2021). The manager's experience serves as the foundation for the related interpretations (Zafari et al., 2020). Consequently, a possible future research avenue could involve the exploration of how managers need to promote the establishment of social relationships among many employees in various jobs inside the partner organization (Zafari et al., 2020).

5.2. The benefits of relational turbulence

Studies have shown that emotional improvement is facilitated when partners exchange emotional support messages in a clear fashion—with reasons to support the claims—and engage in nonverbal behaviors suited to make a distressed individual feel valued and cared for. This is a major benefit of relational turbulence (Goodboy et al., 2021; Jones & Theiss, 2021). According to the extant literature (Goodboy et al., 2021; Jones & Theiss, 2021), the characteristics of relational turbulence can yield a number of desirable benefits derived from its direct outputs and its mediating and moderating impacts (Goodboy et al., 2021; Jones & Theiss, 2021). We were able to recognize and differentiate such benefits as internal and external ones.

5.2.1. Internal benefits

Our sample literature revealed that the dimensions of relational turbulence have both positive and negative impacts on partner inference, family firm bonds, and other factors including agency stability, sustainable leadership, strategic relationship adjustments, and customer relationship management (Fayezi et al., 2012; Goodboy et al., 2020). Theiss and Nagy (2012) examined the link between intimacy, relational uncertainty, partner interference, relational instability, and issue avoidance. An examination of Korean and American firms found that (i) relational uncertainty is negatively related to intimacy and curvilinearly associated with partner interference, (ii) subject avoidance is positively related to relational uncertainty, and (iii) partner interference is positively related to perceived turmoil, according to the American model (Kalibwani et al., 2018; Vicol, Neilson, Hartatri, & Cooper, 2018). Relational uncertainty was found to be adversely related with intimacy in the South Korean model, whereas both relational uncertainty and partner interference were found to be positively connected with perceived turmoil, which, in turn, was found to be positively associated with issue avoidance (Theiss & Nagy, 2012). In the family business context, both formal and social control affect decision-making quality (Mustakallio et al., 2002), which is beneficial in managing value chain activities, such as inbound and outbound logistics, operations, marketing, and sales. As a result of learning orientation and organizational memory, such forms of control are related to performance and innovation. Hanvanich, Sivakumar, and Hult (2006) suggested updated knowledge of supply chain activities as a factor that facilitates agency management.

Two sub-dimensions of market orientation—customer orientation and inter-functional coordination—were found to be favorably related to manufacturing performance in emerging economies, with the relationship strengthening in the presence of a greater availability of firm level resources (Gaur et al., 2011). Furthermore, Gaur et al. (2011) uncovered that firm resources and competitive intensity influence the link between some sub-dimensions of market orientation and business

performance. In the agricultural context, agricultural commodity value chain growth achieved through multi-stakeholder partnerships (MSPs) can help rural farming communities to quickly improve their living conditions (Kalibwani et al., 2018). The importance of carefully selecting partnerships to develop the value chain was uncovered, with the preferable inclusion of partners capable of helping farmers improve their knowledge, skills, and technology in order to better position themselves for market opportunities (Kalibwani et al., 2018).

Having investigated value analysis, value production, and value delivery, Lindgreen, Hingley, Grant, and Morgan (2012) provided a process model for value orchestration in business and industrial marketing. Transactional vs. relational marketing behaviors were identified as beneficial in managing agency problems among value chain partners (Neilson & Pritchard, 2011; Patrucco et al., 2021; Schlesinger & Doherty, 2021). According to the empirical findings of Gyedu, Tang, Ntarmah, and Manu (2021), product/service innovation, process innovation, marketing innovation, and administrative innovation are all conducive to business success. Technical turbulence was found to positively moderate the association between multiple constructs of innovation capability and company performance, implying that technological turbulence significantly strengthens the relationship between these variables (Neilson & Pritchard, 2011; Patrucco et al., 2021; Schlesinger & Doherty, 2021). Meanwhile, market volatility was found to dramatically erode the link between various innovation capability structures and business performance (Gyedu et al., 2021). Another point of view identified in the literature states that employee resilience appears to somewhat moderate the association between market instability and service innovation (Senbeto & Hon, 2020). The other identified variables includes firm stability (Pasha & Poister, 2017), sustainable leadership (Iqbal, Ahmad, & Li, 2021), strategic relationship adjustments (Zafari et al., 2020), and customer relationship management (Yan et al., 2020).

5.2.2. External benefits

Our sample literature uncovered the negative impact of the relational turbulence dimensions on market turbulence, higher competitive intensity, innovation ability, market performance, environmental factors, technology features, value innovation ability, deliberate learning mechanisms, and supply chain performance (Lumapow, 2018; Mitchell et al., 2016; Nauhria, Kulkarni, & Pandey, 2018). We were able to recognize and differentiate the variables as follows (Lumapow, 2018; Nauhria et al., 2018). First, the impact of firm innovation on business success was found to differ depending on market volatility and competitive intensity (Tsai & Yang, 2013). In strategy, high competitive intensity is described as the degree to which companies in a certain industry apply pressure on one another (Jones et al., 2021; Jones & Theiss, 2021). A certain level of rivalry is beneficial because it pushes firms to innovate (Kim & Choi, 2015; Knobloch & Domovan-Kicken, 2006). Competition motivates teams and individuals to perform at their best, whether in the workplace or otherwise. Effectively, it is this type of competition that keeps most businesses on their toes, driving them to outperform their competitors (Tsai & Yang, 2013).

Innovation was also found to mediate the relationship between e-marketing services and performance; and knowledge complexity and environmental turbulence to positively moderate such relationship (Chong, Bian, & Zhang, 2016).

Bao et al. (2020) found that interdependent governmental networking and environmental turbulence moderate the relationship between geographic search and business model innovation. Value innovation ability creates a positive word-of-mouth communication among customers, improving any ongoing value chain activities of organizations (Berghman et al., 2012). Similarly, Ng, Ding, and Yip (2013) investigated the new outcome-based contracting business model, in which a firm is entrusted with maintaining equipment in relation to a service contract, rather than to typical maintenance, repair, and overhaul activities (e.g., power-by-the-hour engine service contracts).

Aarikka-Stenroos and Jaakkola (2012) stated that agents can also employ a dyadic problem-solving technique to co-create value in the context of complex offerings. Furthermore, deliberate learning mechanisms (Aarikka-Stenroos & Jaakkola, 2012; Berghman et al., 2012) and supply chain performance (Ellram & Murfield, 2019; Fayezi et al., 2012; Green Jr et al., 2012; Gunasekaran et al., 2017; Liu, Ke, Wei, & Hua, 2013) were found to be positively associated with partner marketing strategy alignment throughout the supply chain, and supply chain performance to be positively associated with organizational performance.

When considering both external and internal benefits for supply chain activities, it can be seen that a firm's level of trust in a supply chain partner is directly related to the amount of specific assets invested in that partnership, with higher levels of trust leading to greater levels of commitment to the partnership (Ellram & Murfield, 2019). In establishing unique and more streamlined processes and automating non-value adding operations, supply chain partnerships endowed with resource specificity achieve speed and quality in decision making, with non-value adding operations being routinized (Durach et al., 2017).

5.3. The risks of relational turbulence

According to agency theorists, explicit incentive mechanisms, such as written contracts and monitoring, have always played a key role in mitigating agency problems (Fayezi et al., 2012; Kaal, 2021; Mitchell et al., 2016). Based on moral hazard and adverse selection, these solutions have proven to be insufficient, as can be demonstrated in relation to the associated risks (Fayezi et al., 2012; Schlesinger & Doherty, 2021; Yang, 2016). Existing research has primarily focused on the positive impact of the relational turbulence dimensions (Kaal, 2021; Schlesinger & Doherty, 2021). A growing but still limited body of research has examined the hazards or bad effects of the relational turbulence concept, implying a double-edged sword effect (Goodboy et al., 2021; Jones & Theiss, 2021; Knobloch & Theiss, 2018; Theiss & Nagy, 2013).

We identified 11 key and insightful components of relational turbulence risks, including their nature and when and why they arise. In our sample literature, a number of drawbacks have been found to be associated with excessive degrees of relational turbulence (Goodboy et al., 2021; Jones & Theiss, 2021; Knobloch & Theiss, 2018; Theiss & Nagy, 2012; Theiss & Nagy, 2013). Furthermore, relational uncertainty and interdependence are parameters that complicate relationships during transitions (Knobloch et al., 2020; Knobloch & Theiss, 2018).

Partner interference was also found to be a factor that is positively related with issue avoidance (Theiss & Nagy, 2012). Further emotional aspects, such as honesty, trustworthiness and direct communication, can be also used to develop strong partnerships (King & La Valley, 2019). This aspect is common among family firms (Mustakallio et al., 2002). Environmental turbulence also alters the outcomes of relational turbulence and the management of value chain activities (Cousins & Spekman, 2003; Ellram & Murfield, 2019; Fayezi et al., 2012; Vicol et al., 2018). For example, a supply chain's environmental influence extends beyond greenhouse gas emissions, water scarcity, land use difficulties, hazardous waste, water pollution, deforestation, air quality, and energy use, which are all key factors that need to be addressed (Cousins & Spekman, 2003; Ellram & Murfield, 2019; Fayezi et al., 2012; Vicol et al., 2018).

Moreover, agency problems can be countered by harmonizing the interests of various partners (Schlesinger & Doherty, 2021). In this regard, service personnel re-entry issues affecting relationships can occur. Knobloch and Theiss (2011) examined the mechanisms that link depressive symptoms to relationship satisfaction. For instance, many health-related concerns—ranging from mental health needs to drug abuse histories and high rates of communicable diseases—lack of experience, and inadequate educational or vocational abilities can be identified as leading factors in relation to re-entry procedures (Brito & Miguel, 2017; Burgin & Mikkilineni, 2021). MacKenzie (2011) examined the role played by the procedures through which market

participants produce knowledge of financial instruments in credit crises. The findings offer a historical sociology of the clusters of evaluation practices surrounding asset-backed securities—and, most importantly, mortgage-backed securities—and collateralized debt obligations (MacKenzie, 2011).

Relational turbulence has been frequently reported to play a vital role in facilitating and increasing knowledge on natural disasters including tsunamis, floods, and pandemics (MacKenzie, 2011). However, the risk caused by disasters was only measured using management strategies by analyzing the nature, typology, and scale of crises and disasters (Ritchie & Jiang, 2019). The sub outcomes of the main risks—tourism risks, crises, and catastrophe management—are yet to be defined by the firms. Brisini et al. (2018) merged the frameworks of the relational turbulence and the experiencing life transitions models to look at marriage transitions. Some significant correlations were found between relationship turbulence features, transition processing activity involvement, and transition valence (Gyedu et al., 2021). Any lack of knowledge of the market from the managers point of view (Gyedu et al., 2021) dramatically erodes the link between various innovation capability structures and business performance. In emerging economies, product development management has a higher positive influence on new product performance than customer relationship management, and the effects of market and institutional environment contingent vary (Yan et al., 2020). The curvilinear link between the two aspects of market orientation and new product success are influenced by external environmental factors (Tsai et al., 2008). For example, product innovation may fail to attract enough customers (Tsai et al., 2008). It may not meet some quality or delivery criteria and the profit margins and cash flows may be insufficient (Tsai et al., 2008).

One of the major contributions to the model of relationship turbulence is the identification of the existing risks in the management of agency problems among value chain partners. This study identified 11 key and insightful components of relational turbulence risks, including the nature of the risks, as well as when and why they arise. A number of drawbacks have been found in the current literature as being associated with the presence of an excessive degree of relational turbulence dimensions in managing the agency problems between partners in the value chain (Goodboy et al., 2021; Jones & Theiss, 2021; Knobloch & Theiss, 2018; Theiss & Nagy, 2013).

5.4. The boundary conditions of relational turbulence

Boundary conditions refer to the restrictions that govern how value chain activities are managed within agencies (Mustakallio et al., 2002). The outcomes of the management of agency problems among value chain partners vary due to the level of interdependence, organizations operating under turbulence, firm innovativeness, value chain innovation ability, and future orientation due to the adoption of global value chain activities (Choi et al., 2021; Ellram & Murfield, 2019; Fayezi et al., 2012). For example, the influence of interdependence is determined by the supply chain structure: low interdependence between components provided by suppliers increases quality, but degrades it when the focal business manufactures the full subassembly (Choi et al., 2021; Ellram & Murfield, 2019; Fayezi et al., 2012).

Moreover, turbulence acts as a moderator in the linkages between a firm's learning orientation and memory, and its organizational performance and innovativeness (Bicen et al., 2021; Brisini et al., 2018; Hanvanich et al., 2006). It has been identified that, in global supply chains, any unaddressed volatility, even originating from afar, can quickly cascade, causing serious disruption and loss of profit (Bicen et al., 2021; Brisini et al., 2018; Hanvanich et al., 2006). Firm-level innovativeness is another boundary condition we identified through our review. Its impact on business success varies depending on market volatility and competitive intensity (Tsai & Yang, 2013). It also includes government and institutional features (Bao et al., 2020), value chain innovation ability (Aarikka-Stenroos & Jaakkola, 2012), and a firm's

future-oriented planning ability, including market scanning (Danneels & Sethi, 2011). Additionally, any management strategy devised by analyzing the nature, typology, and scale of crises and disasters (Ritchie & Jiang, 2019) and adopted in the global value chain (Fayezi et al., 2012; Neilson & Pritchard, 2011) can act as boundary conditions due to dynamic supply chain behaviors and interactions. The existing research on the role played by relational turbulence in managing the agency problems among value chain partners has uncovered a wide range of antecedents, benefits, hazards, and boundary conditions. One of the major contributions thus made to the model of relationship turbulence is the identification of the existing boundary conditions. Consequently, the outcomes of the management of agency problems among value chain partners differ due to the quality of interdependencies. Other factors here also include the degree of turbulence experienced by organizations, a firm's innovativeness, the value chain's ability to innovate, and future orientation resulting from the adoption of global value chain activities (Choi et al., 2021; Ellram & Murfield, 2019; Fayezi et al., 2012). The results have been incorporated into the integrative framework shown in Fig. 5.

6. Future research directions

Our review aimed to provide a foundation for future enquiry by identifying any gaps in the extant literature and suggesting important research directions in order to stimulate further theoretical and empirical work suited to advance both the theoretical basis and the practice of relational turbulence in managing the agency problems among value chain partners, additionally identifying and organizing the antecedents, benefits, risks, and boundary conditions.

6.1. Future research avenues

In the extant literature, the antecedents of relational turbulence have received limited attention compared to its outcomes (Goodboy et al., 2020; Goodboy et al., 2021; Green Jr et al., 2012). While classic marketing concepts such as value co-creation are frequently studied in the context of business-to-consumer marketing, their potential in the co-creation of a B2B service ecosystem is currently underscrutinized (Hein et al., 2019).

Limited attention has also been given to relationship-level antecedents, as the existing literature is more focused on inter-firm factors (Ch'ng, Cheah, & Amran, 2021; Durach et al., 2017), generation gaps (Chaperon & Bramwell, 2013; Choi et al., 2021), relationships with customers (Ellram & Murfield, 2019), performance in the relationship (Fayezi et al., 2012), and organizational agility (Chaperon & Bramwell, 2013). Therefore, it would be important to explore how important relationship aspects in the management of agency among value chain partners create conditions for the development of relational turbulence. Managers should be encouraged to adopt a number of those strategies that have been shown to support the mindful management of a relationship.

6.2. Future research related to the benefits of relational turbulence

A growing body of research has examined the interactional effect between the dimensions of relational turbulence and agency problems occurring among value chain partners (Theiss & Nagy, 2012). Researchers have identified and differentiated the internal and external benefits of relational turbulence (Theiss & Nagy, 2012). As discussed above, the focus is more on internal than external benefits. According to the literature, relational turbulence dimensions have a positive impact on market volatility (Senbeto & Hon, 2020; Tsai & Yang, 2013; Wang et al., 2015), higher competitive intensity (Tsai & Yang, 2013), innovation ability (Berghman et al., 2012; Bicen et al., 2021), market performance (Eckhardt et al., 2019; Ertugrul & Hegde, 2008), environmental factors (Gyedu et al., 2021; Pratono & Mahmood, 2014),
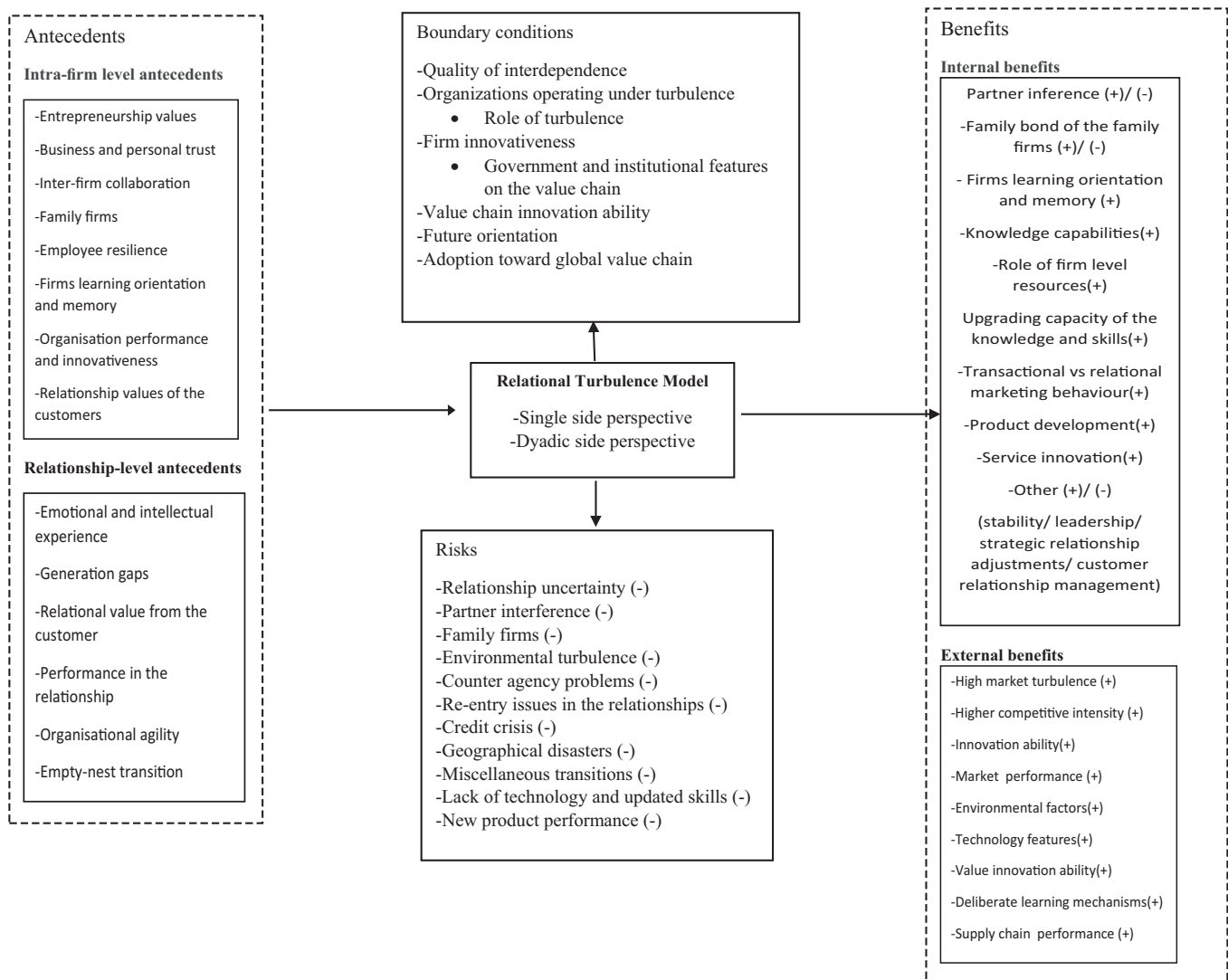
Fig. 5. Integrative framework.
Source: Developed by authors.
Note:(+) denotes a positive relationship; and (−) indicates a negative relationship.

technology features (Danneels & Sethi, 2011; Durach et al., 2017), value innovation ability and deliberate learning mechanisms (Berghman et al., 2012; Hanvanich et al., 2006).

Additionally, this imbalance indicates that the external benefits aspect has not been adequately addressed (Berghman et al., 2012; Devaux et al., 2018; Ertugrul & Hegde, 2008; Hanvanich et al., 2006) sine it is difficult to measure external variables and quantify issues when applying the relational turbulence concept in measuring a physical relationship (Bicen et al., 2021; Goodboy et al., 2020; Goodboy et al., 2021). Therefore, future research could be more encompassing by including all the dimensions of external benefits in order to provide greater insights into the relative importance of each with regard to the role played by relational turbulence in managing the agency problems among value chain partners. Furthermore, researchers should attempt to identify the interrelationships of these variables through the development of new conceptual frameworks. The existing theory could be developed through the examination of whether any particular characteristic of relational turbulence is more likely to influence any specific aspect of the outcome variable.

6.3. Future research related to the risks of relational turbulence

Relational turbulence can have both positive and negative effects. Although our understanding of its beneficial effects is growing rapidly, its negative ones have yet to be fully understood. A growing but limited body of literature is examining the risks and negative effects of relational turbulence, emphasizing their double-edged impact. In our review, we identified 11 critical and informative aspects of relational turbulence hazards, including their nature and when and why they occur. A correlation has been found between excessive amounts of relational turbulence and a number of downsides, which is a major future research avenue. Schlesinger and Doherty (2021) also identified critical future research perspectives on the relational turbulence risks between value chain partners. As an example, Goodboy et al., 2021 outlined a research agenda aimed at verifying agency-related management issues in sports agencies by measuring information asymmetry. Future studies should examine whether partner interference differs in individualist and collectivist cultures (Tukamuhabwa et al., 2021). Furthermore, relationship traits like intimacy and relational ambiguity may have a greater impact on the outcomes of relationships among value chain partners (Senbeto & Hon, 2020). Considering that this research proposal is hypothetical, further studies are needed to reveal the effects of any cross-

cultural differences (Devaux et al., 2018).

6.4. Future research related to the boundary conditions of relational turbulence

While our review found six major boundary conditions in the existing research, it only identified a few moderating variables. Future research could thus focus on identifying the moderators of the antecedents of relational turbulence in order to gain a better understanding of how the related theoretical constructs can be used to solve any agency problems among value chain partners as they develop and evolve (Choi et al., 2021; Cousins & Spekman, 2003; Ellram & Murfield, 2019; Fayezi et al., 2012). Additionally, relational turbulence acts as a moderator in the relationship between an organization's learning orientation and memory, as well as between its organizational performance and innovativeness (Bicen et al., 2021; Hanvanich et al., 2006).

We identified a major future research concern pertaining to boundary conditions, which is that interdependence is influenced by the supply chain structure (Choi et al., 2021; Cousins & Spekman, 2003; Ellram & Murfield, 2019; Fayezi et al., 2012). In addition, formal and social control also affect decision-making quality (Mustakallio et al., 2002). By adopting longitudinal research designs (Bicen et al., 2021), future researchers could shed light on the factors affecting value chain activities, including in-bound logistics, human resource management, and logistics, as these are the main components of any organization (Cousins & Spekman, 2003; Durach et al., 2017; Ellram & Murfield, 2019; Fayezi et al., 2012; Green Jr et al., 2012).

7. Theoretical and managerial contributions

We contribute to the current literature in two ways. First, by conducting the first theoretical-framework based review of relational turbulence model-based agency problem management in value chain activities carried out through PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines and a TCM framework (Theory, Context, and Methodology) over the 2011–2021 period, we provide guidance for researchers by highlighting numerous research gaps categorized in four groups pertaining to how relationship transitions polarize emotions and cognitive assessments, disrupting partner communication in the sharing economy through antecedents, benefits, risks, and boundary conditions.

Second, we provided an impartial analysis by selecting the most relevant papers for our review, then systematically reviewing them and identifying future research gaps on the application of a relational turbulence model in the management of agency problems among value chain partners. We also offer several practical implications for the agencies involved in the value chain of the sharing economy.

8. Conclusion

We systematically reviewed and demonstrated the growth of the new concept of relational turbulence in managing agency problems among value chain partners. In this regard, we investigated the antecedents, benefits, risks, and boundary conditions of relational turbulence. We selected 52 publications published in peer-reviewed journals between 2011 and 2021 and performed descriptive and thematic analyses of the publications based on publishing trends over time, methodological approaches taken, research perspectives, and relational turbulence dimensions investigated.

Our study has certain limitations. Its scope was limited to the theoretical constructs of the relational turbulence model. Behavioral psychology theories could be used to provide a more comprehensive understanding of the management of agency problems between the partners in the value chain. Furthermore, we covered research published between 2011 and 2021. Lastly, this study contributed to the existing literature by identifying future research gaps and most prominent research areas under the topic of relational turbulence in managing agency problems.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.indmarman.2022.09.024.

References

Aarikka-Stenroos, L., & Jaakkola, E. (2012). Value co-creation in knowledge intensive business services: A dyadic perspective on the joint problem solving process. *Industrial Marketing Management, 41*(1), 15–26.

Abelha, M., Fernandes, S., Mesquita, D., Seabra, F., & Ferreira-Oliveira, A. T. (2020). Graduate employability and competence development in higher education – A systematic literature review using PRISMA. *Sustainability, 12*(15), 1–5900.

Alghababsheh, M., & Gallear, D. (2020). Social capital in buyer-supplier relationships: A review of antecedents, benefits, risks, and boundary conditions. *Industrial Marketing Management, 91*, 338–361.

Al-Qatanani, N., & Siam, Y. (2021). Can ownership structure and board characteristics affect firm performance? *Accounting, 7*(6), 1325–1330.

Amato, S., Basco, R., & Lattanzi, N. (2022). Contextualizing employment outcomes in family business research: Current findings and future research avenues. *Management Review Quarterly, 72*(2), 531–604.

Aron, A., Norman, C. C., & Aron, E. N. (2001). Shared self-expanding activities as a means of maintaining and enhancing close romantic relationships. In *Close romantic relationships* (pp. 55–74). Psychology Press.

Bacon, C. M., Sundstrom, W. A., Stewart, I. T., Maurer, E., & Kelley, L. C. (2021). Towards smallholder food and water security: Climate variability in the context of multiple livelihood hazards in Nicaragua. *World Development, 143*, 105–468.

Bao, H., Wang, C., & Tao, R. (2020). Examining the effects of governmental networking with environmental turbulence on the geographic searching of business model innovation generations. *Journal of Knowledge Management, 25*(1), 157–174.

Berger, C. R., & Bradac, J. J. (1982). *Language and social knowledge: Uncertainty in interpersonal relations* (Vol. 2). Hodder Education.

Berghman, L., Matthyssens, P., & Vandenbempt, K. (2012). Value innovation, deliberate learning mechanisms and information from supply chain partners. *Industrial Marketing Management, 41*(1), 27–39.

Berrone, P., Cruz, C., & Gomez-Mejia, L. R. (2012). Socioemotional wealth in family firms: Theoretical dimensions, assessment approaches, and agenda for future research. *Family Business Review, 25*(3), 258–279.

Bicen, P., Hunt, S. D., & Madhavaram, S. (2021). Coopetitive innovation Alliance performance: Alliance competence, alliance's market orientation, and relational governance. *Journal of Business Research, 123*, 23–31.

Braiker, H. B., & Kelley, H. H. (1979). Conflict in the development of close relationships. *Social Exchange in Developing Relationships, 135*, 1–168.

Brisini, K. S. C., Solomon, D. H., & Nussbaum, J. (2018). Transitions in marriage: Types, turbulence, and transition processing activities. *Journal of Social and Personal Relationships, 35*(6), 831–853.

Brito, R. P., & Miguel, P. L. (2017). Power, governance, and value in collaboration: Differences between buyer and supplier perspectives. *Journal of Supply Chain Management, 53*(2), 61–87.

Burgin, M., & Mikkilineni, R. (2021). From data processing to knowledge processing: Working with operational schemas by autopoietic machines. *Big Data and Cognitive Computing, 5*(1), 1–13.

Butkouskaya, V., Llonch-Andreu, J., & Alarcón-Del-Amo, M. D. C. (2021). Strategic antecedents and organisational consequences of IMC in different economy types. *Journal of Marketing Communications, 27*(2), 115–136.

Cadogan, J. W., Sundqvist, S., Puumalainen, K., & Salminen, R. T. (2012). Strategic flexibilities and export performance: The moderating roles of export market-oriented behavior and the export environment. *European Journal of Marketing, 46*(10), 1418–1452.

Chaperon, S., & Bramwell, B. (2013). Dependency and agency in peripheral tourism development. *Annals of Tourism Research, 40*, 132–154.

Ch'ng, P. C., Cheah, J., & Amran, A. (2021). Eco-innovation practices and sustainable business performance: The moderating effect of market turbulence in the Malaysian technology industry. *Journal of Cleaner Production, 283*, Article 124556.

Cho, D. W., Lee, Y. H., Ahn, S. H., & Hwang, M. K. (2012). A framework for measuring the performance of service supply chain management. *Computers & Industrial Engineering, 62*(3), 801–818.

Choi, T. Y., Narayanan, S., Novak, D., Olhager, J., Sheu, J. B., & Wiengarten, F. (2021). Managing extended supply chains. *Journal of Business Logistics, 42*(2), 200–206.

Chong, W. K., Bian, D., & Zhang, N. (2016). E-marketing services and e-marketing performance: The roles of innovation, knowledge complexity and environmental turbulence in influencing the relationship. *Journal of Marketing Management, 32*(1–2), 149–178.

Côrte-Real, N., Oliveira, T., & Ruivo, P. (2017). Assessing business value of big data analytics in European firms. *Journal of Business Research, 70*, 379–390.

Cousins, P. D., & Spekman, R. (2003). Strategic supply and the management of inter-and intra-organisational relationships. *Journal of Purchasing and Supply Management, 9*(1), 19–29.

Danneels, E., & Sethi, R. (2011). New product exploration under environmental turbulence. *Organization Science, 22*(4), 1026–1039.

Devaux, A., Torero, M., Donovan, J., & Horton, D. (2018). Agricultural innovation and inclusive value-chain development: A review. *Journal of Agribusiness in Developing and Emerging Economies, 8*(1), 99–123.

Durach, C. F., Kembro, J., & Wieland, A. (2017). A new paradigm for systematic literature reviews in supply chain management. *Journal of Supply Chain Management, 53*(4), 67–85.

Eckhardt, G. M., Houston, M. B., Jiang, B., Lamberton, C., Rindfleisch, A., & Zervas, G. (2019). Marketing in the sharing economy. *Journal of Marketing, 83*(5), 5–27.

Ellram, L. M., & Murfield, M. L. U. (2019). Supply chain management in industrial marketing–relationships matter. *Industrial Marketing Management, 79*(1), 36–45.

Ertugrul, M., & Hegde, S. (2008). Board compensation practices and agency costs of debt. *Journal of Corporate Finance, 14*(5), 512–531.

Fairhurst, G. T. (2008). Discursive leadership: A communication alternative to leadership psychology. *Management Communication Quarterly, 21*(4), 510–521.

Fayezi, S., O'Loughlin, A., & Zutshi, A. (2012). Agency theory and supply chain management: A structured literature review. *Supply Chain Management: An International Journal, 17*(5), 1–15.

Gaur, S. S., Vasudevan, H., & Gaur, A. S. (2011). Market orientation and manufacturing performance of Indian SMEs: Moderating role of firm resources and environmental factors. *European Journal of Marketing, 45*(8), 22.

Goodboy, A. K., Bolkan, S., Sharabi, L. L., Myers, S. A., & Baker, J. P. (2020). The relational turbulence model: A meta-analytic review. *Human Communication Research, 46*(2–3), 222–249.

Goodboy, A. K., Dillow, M. R., Knoster, K. C., & Howard, H. A. (2021). Relational turbulence from the COVID-19 pandemic: Within-subjects mediation by romantic partner interdependence. *Journal of Social and Personal Relationships, 38*(6), 1800–1818.

Green, K. W., Jr., Whitten, D., & Inman, R. A. (2012). Aligning marketing strategies throughout the supply chain to enhance performance. *Industrial Marketing Management, 41*(6), 1008–1018.

Gunasekaran, A., Papadopoulos, T., Dubey, R., Wamba, S. F., Childe, S. J., Hazen, B., & Akter, S. (2017). Big data and predictive analytics for supply chain and organizational performance. *Journal of Business Research, 70*, 308–317.

Gyedu, S., Tang, H., Ntarmah, A. H., & Manu, E. K. (2021). The moderating effect of environmental turbulence on the relationship between innovation capability and business performance. *International Journal of Innovation Science, 13*(4), 456–476.

Hanvanich, S., Sivakumar, K., & Hult, G. T. M. (2006). The relationship of learning and memory with organizational performance: The moderating role of turbulence. *Journal of the Academy of Marketing Science, 34*(4), 600–612.

Harvey, J., Smith, A., Goulding, J., & Illodo, I. B. (2020). Food sharing, redistribution, and waste reduction via mobile applications: A social network analysis. *Industrial Marketing Management, 88*, 437–448.

Hein, A., Weking, J., Schreieck, M., Wiesche, M., Böhm, M., & Krcmar, H. (2019). Value co-creation practices in business-to-business platform ecosystems. *Electronic Markets, 29*(3), 503–518.

Ibáñez, F. (2021). A necessary ethics definition for conflicts of interest. *Business & Professional Ethics Journal, 40*(1), 29–45.

Iqbal, Q., Ahmad, N. H., & Li, Z. (2021). Frugal-based innovation model for sustainable development: Technological and market turbulence. *Leadership and Organization Development Journal, 42*(3), 396–407.

Jajja, M. S. S., Kannan, V. R., Brah, S. A., & Hassan, S. Z. (2017). Linkages between firm innovation strategy, suppliers, product innovation, and business performance: Insights from resource dependence theory. *International Journal of Operations & Production Management, 37*(8), 1–30.

Jensen, M. C., & Meckling, W. H. (1995). Specific and general knowledge, and organizational structure. *Journal of Applied Corporate Finance, 8*(2), 4–18.

Jones, H. E., & Theiss, J. A. (2021). Relational turbulence during the COVID-19 pandemic: A longitudinal analysis of the reciprocal effects between relationship characteristics and outcomes of relational turbulence. *Journal of Social and Personal Relationships, 38*(10), 3033–3058.

Jones, H. E., Yoon, D. B., Theiss, J. A., Austin, J. T., & Lee, L. E. (2021). Assessing the effects of COVID-19 on romantic relationships and the coping strategies partners use to manage the stress of a pandemic. *Journal of Family Communication, 21*(3), 152–166.

Kaal, W. A. (2021). Blockchain solutions for agency problems in corporate governance. In *Information for efficient decision making: Big data, Blockchain and relevance* (pp. 313–329). World Scientific.

Kalibwani, R. M., Twebaze, J., Kamugisha, R., Kakuru, M., Sabiiti, M., Kugonza, I., & Nyamwaro, S. (2018). Multi-stakeholder partnerships in value chain development: A case of the organic pineapple in Ntungamo district, Western Uganda. *Journal of Agribusiness in Developing and Emerging Economies, 8*(1), 15.

Kanani.. (2016). Analysis of factors affecting organizational agility. *Singaporean Journal of Business, Economics Management Studies, 51*(3523), 1–7.

Kelley, H., & Thibaut, J. (1978). *Interpersonal relations: A theory of interdependence*. New York: Wiley.

Kim, Y., & Choi, T. Y. (2015). Deep, sticky, transient, and gracious: An expanded buyer–supplier relationship typology. *Journal of Supply Chain Management, 51*(3), 61–86.

Kim, Y., Choi, T. Y., & Skilton, P. F. (2015). Buyer-supplier embeddedness and patterns of innovation. *International Journal of Operations & Production Management, 35*(3), 1–31.

King, M. E., & La Valley, A. G. (2019). Partner influence, emotion, and relational outcomes: A test of relational turbulence theory in early dating relationships. *Southern Communication Journal, 84*(5), 287–300.

Knobloch, L. K., & Carpenter-Theune, K. E. (2004). Topic avoidance in developing romantic relationships: Associations with intimacy and relational uncertainty. *Communication Research, 31*(2), 173–205.

Knobloch, L. K., & Domovan-Kicken, E. R. I. N. (2006). Perceived involvement of network members in courtships: A test of the relational turbulence model. *Personal Relationships, 13*(3), 281–302.

Knobloch, L. K., Mcaninch, K. G., Abendschein, B., Ebata, A. T., & Mcglaughlin, P. C. (2016). Relational turbulence among military couples after Reunion following deployment. *Personal Relationships, 23*(4), 742–758.

Knobloch, L. K., Nichols, L. O., & Martindale-Adams, J. (2020). Applying relational turbulence theory to adult caregiving relationships. *The Gerontologist, 60*(4), 598–606.

Knobloch, L. K., & Solomon, D. H. (2002). Information seeking beyond initial interaction: Negotiating relational uncertainty within close relationships. *Human Communication Research, 28*(2), 243–257.

Knobloch, L. K., & Theiss, J. A. (2011). Depressive symptoms and mechanisms of relational turbulence as predictors of relationship satisfaction among returning service members. *Journal of Family Psychology, 25*(4), 1–470.

Knobloch, L. K., & Theiss, J. A. (2018). Relational turbulence theory applied to the transition from deployment to reintegration. *Journal of Family Theory & Review, 10*(3), 535–549.

Kumar, V., Lahiri, A., & Dogan, O. B. (2018). A strategic framework for a profitable business model in the sharing economy. *Industrial Marketing Management, 69*, 147–160.

Kummer, S., Herold, D. M., Dobrovnik, M., Mikl, J., & Schäfer, N. (2020). A systematic review of blockchain literature in logistics and supply chain management: Identifying research questions and future directions. *Future Internet, 12*(3), 1–60.

Kwak, D. W., Seo, Y. J., & Mason, R. (2018). Investigating the relationship between supply chain innovation, risk management capabilities and competitive advantage in global supply chains. *International Journal of Operations & Production Management, 38*(1), 2–21.

Lindgreen, A., Hingley, M. K., Grant, D. B., & Morgan, R. E. (2012). Value in business and industrial marketing: Past, present, and future. *Industrial Marketing Management, 41*(1), 207–214.

Liu, H., Ke, W., Wei, K. K., & Hua, Z. (2013). The impact of IT capabilities on firm performance: The mediating roles of absorptive capacity and supply chain agility. *Decision Support Systems, 54*(3), 1452–1462.

Lumapow, L. S. (2018). The influence of managerial ownership and firm size on debt policy. *International Journal of Applied Business and International Management (IJABIM), 3*(1), 47–55.

MacKenzie, D. (2011). The credit crisis as a problem in the sociology of knowledge. *American Journal of Sociology, 116*(6), 1778–1841.

Mangus, S. M., Jones, E., Folse, J. A. G., & Sridhar, S. (2020). The interplay between business and personal trust on relationship performance in conditions of market turbulence. *Journal of the Academy of Marketing Science, 48*(6), 1138–1155.

Mikucki-Enyart, S. L., Wilder, S. E., & Barber, H. (2017). "Was it all smoke and mirrors?" applying the relational turbulence model to adult children's experience of late-life parental divorce. *Journal of Social and Personal Relationships, 34*(2), 209–234.

Miller, G. R., & Steinberg, M. (1975). *Between people: A new analysis of interpersonal communication*. Science Research Associates.

Mitchell, R. K., Weaver, G. R., Agle, B. R., Bailey, A. D., & Carlson, J. (2016). Stakeholder agency and social welfare: Pluralism and decision making in the multi-objective corporation. *Academy of Management Review, 41*(2), 252–275.

Mueller, E. F. (2021). Towards a theory of network facilitation: A microfoundations perspective on the antecedents, practices and outcomes of network facilitation. *British Journal of Management, 32*(1), 80–96.

Mustakallio, M., Autio, E., & Zahra, S. A. (2002). Relational and contractual governance in family firms: Effects on strategic decision making. *Family Business Review, 15*(3), 205–222.

Nagy, M. E., & Theiss, J. A. (2013). Applying the relational turbulence model to the empty-nest transition: Sources of relationship change, relational uncertainty, and interference from partners. *Journal of Family Communication, 13*(4), 280–300.

Nauhria, Y., Kulkarni, M. S., & Pandey, S. (2018). Development of strategic value chain framework for Indian car manufacturing industry. *Global Journal of Flexible Systems Management, 19*(1), 21–40.

Ndubisi, N. O., Dayan, M., Yeniaras, V., & Al-hawari, M. (2020). The effects of complementarity of knowledge and capabilities on joint innovation capabilities and service innovation: The role of competitive intensity and demand uncertainty. *Industrial Marketing Management, 89*, 196–208.

Neilson, J., & Pritchard, B. (2011). *Value chain struggles: Institutions and governance in the plantation districts of South India*. John Wiley & Sons.

Ng, I. C., Ding, D. X., & Yip, N. (2013). Outcome-based contracts as new business model: The role of partnership and value-driven relational assets. *Industrial Marketing Management, 42*(5), 730–743.

Pasha, O., & Poister, T. H. (2017). Exploring the change in strategy formulation and performance measurement practices under turbulence. *Public Performance & Management Review, 40*(3), 504–528.

Patrucco, A. S., Moretto, A., & Knight, L. (2021). Does relationship control hinder relationship commitment? The role of supplier performance measurement systems in construction infrastructure projects. *International Journal of Production Economics, 233*, Article 108000.

Pratono, A., & Mahmood, R. (2014, June). Moderating impact of environmental turbulence in the relationship between entrepreneurial management and firm performance. In A. H. Pratono, & Mahmood (2014) (Eds.), *"Moderating impact of environmental turbulence in the relationship between entrepreneurial management and firm performance" presented for the 3rd international conference on social science and business*.

Racine, M., Tousignant-Laflamme, Y., Kloda, L. A., Dion, D., Dupuis, G., & Choinière, M. (2012). A systematic literature review of 10 years of research on sex/gender and

experimental pain perception–part 1: Are there really differences between women and men? *Pain, 153*(3), 602–618.

Richey, L. A., & Ponte, S. (2021). Brand aid and coffee value chain development interventions: Is Starbucks working aid out of business? *World Development, 143*, Article 105193.

Ritchie, B. W., & Jiang, Y. (2019). A review of research on tourism risk, crisis and disaster management: Launching the annals of tourism research curated collection on tourism risk, crisis and disaster management. *Annals of Tourism Research, 79*, Article 102812.

Rousseau, D. M., Manning, J., & Denyer, D. (2008). 11 evidence in management and organizational science: Assembling the field's full weight of scientific knowledge through syntheses. *Academy of Management Annals, 2*(1), 475–515.

Schlesinger, T., & Doherty, A. (2021). The utility of certification for managing the state-voluntary sport club relationship: An agency theory perspective. *Managing Sport and Leisure, 26*(1–2), 116–132.

Senbeto, D. L., & Hon, A. H. (2020). Market turbulence and service innovation in hospitality: Examining the underlying mechanisms of employee and organizational resilience. *The Service Industries Journal, 40*(15–16), 1119–1139.

Sigala, M. (2018). Market formation in the sharing economy: Findings and implications from the sub-economies of Airbnb. In *Social dynamics in a systems perspective* (pp. 159–174). Springer.

Solomon, D. H., & Knobloch, L. K. (2004). A model of relational turbulence: The role of intimacy, relational uncertainty, and interference from partners in appraisals of irritations. *Journal of Social and Personal Relationships, 21*(6), 795–816.

Solomon, D. H., & Theiss, J. A. (2010). Relational turbulence: What doesn't kill us makes us stronger. In *The dark side of close relationships II* (pp. 217–236). Routledge.

Solomon, D. H., Weber, K. M., & Steuber, K. R. (2010). Turbulence in relational transitions. *New Directions in Interpersonal Communication Research*, 115–134.

Solomon, L. (2016). Two-thirds of managers are uncomfortable communicating with employees. *Harvard Business Review*, 28.

Tatoglu, E., Frynas, J. G., Bayraktar, E., Demirbag, M., Sahadev, S., Doh, J., & Koh, S. L. (2020). Why do emerging market firms engage in voluntary environmental management practices? A strategic choice perspective. *British Journal of Management, 31*(1), 80–100.

Theiss, J. A., & Nagy, M. E. (2012). A cross-cultural test of the relational turbulence model: Relationship characteristics that predict turmoil and topic avoidance for Koreans and Americans. *Journal of Social and Personal Relationships, 29*(4), 545–565.

Theiss, J. A., & Nagy, M. E. (2013). A relational turbulence model of partner responsiveness and relationship talk across cultures. *Western Journal of Communication, 77*(2), 186–209.

Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British Journal of Management, 14*(3), 207–222.

Tsai, K. H., Chou, C., & Kuo, J. H. (2008). The curvilinear relationships between responsive and proactive market orientations and new product performance: A contingent link. *Industrial Marketing Management, 37*(8), 884–894.

Tsai, K. H., & Yang, S. Y. (2013). Firm innovativeness and business performance: The joint moderating effects of market turbulence and competition. *Industrial Marketing Management, 42*(8), 1279–1294.

Tukamuhabwa, B., Mutebi, H., & Isabirye, D. (2021). Supplier performance in the public healthcare: Internal social capital, logistics capabilities and supply chain risk management capabilities as antecedents in a developing economy. *Journal of Business and Socio-economic Development.*. https://doi.org/10.1108/JBSED-04-2021-0046

Vicol, M., Neilson, J., Hartatri, D. F. S., & Cooper, P. (2018). Upgrading for whom? Relationship coffee, value chain interventions and rural development in Indonesia. *World Development, 110*, 26–37.

Villarán, A. (2020). Conflicts of interest: A moral analysis. *Business & Professional Ethics Journal, 39*(1), 121–142.

Voss, M., & Kock, A. (2013). Impact of relationship value on project portfolio success—Investigating the moderating effects of portfolio characteristics and external turbulence. *International Journal of Project Management, 31*(6), 847–861.

Wagner, S. M., & Bode, C. (2014). Supplier relationship-specific investments and the role of safeguards for supplier innovation sharing. *Journal of Operations Management, 32* (3), 65–78.

Wang, G., Dou, W., Zhu, W., & Zhou, N. (2015). The effects of firm capabilities on external collaboration and performance: The moderating role of market turbulence. *Journal of Business Research, 68*(9), 1928–1936.

Whipple, J. M., Wiedmer, R., Boyer, K., & K.. (2015). A dyadic investigation of collaborative competence, social capital, and performance in buyer–supplier relationships. *Journal of Supply Chain Management, 51*(2), 3–21.

Yan, J., Zheng, Y., Bao, J., Lu, C., Jiang, Y., Yang, Z., & Feng, C. (2020). How to improve new product performance through customer relationship management and product development management: Evidence from China. *Journal of Business & Industrial Marketing, 36*(1), 31–47.

Yan, T., Yang, S., & Dooley, K. (2017). A theory of supplier network-based innovation value. *Journal of Purchasing and Supply Management, 23*(3), 153–162.

Yang, Y. (2016). Reframing buyer-supplier agency problems beyond the dyad. In *Doctor of philosophy doctor of philosophy*. Arizona State University. core.ac.uk.

Zafari, K., Biggemann, S., & Garry, T. (2020). Mindful management of relationships during periods of crises: A model of trust, doubt and relational adjustments. *Industrial Marketing Management, 88*, 278–286.

Zhang, Y., Shi, S., Guo, S., Chen, X., & Piao, Z. (2021). Audience management, online turbulence and lurking in social networking services: A transactional process of stress perspective. *International Journal of Information Management, 56*, Article 102233.