Critical realist multilevel research in business marketing: a laminated conceptualization of resilience

Markus Vanharanta
University College Dublin, Dublin, Ireland, and
Phoebe Wong

School of Professional Education and Executive Development, The Hong Kong Polytechnic University, Hong Kong, China

Abstract

Purpose – The purpose of this paper is to ease the methodological application of critical realist multilevel research in business marketing. Although there has been plenty of theoretical contributions in this field, it is not always clear how critical realism can be best applied in business marketing settings. Accordingly, this paper addresses this gap in literature. Also, this paper addresses the calls for a multilevel conceptualization for resilience, based on the critical realist laminated systems.

Design/methodology/approach – This is a conceptual paper, which uses pre-existing literature to develop a critical realist methodological approach for the purposes of multilevel business marketing research. The contribution is based on literature by combining pre-existing ideas in a new way in the context of business marketing.

Findings – This paper makes a methodological contribution by introducing the critical realist "laminated systems" to business marketing as a multilevel research approach. Furthermore, the authors conceptualize a specific laminated model, the Laminated Interactional Model (LIM), that is designed for the purpose of business marketing research. The LIM is a methodological tool that conceptualizes business marketing based on six levels of analysis, easing the methodological application of critical realism in business marketing settings. In addition, to provide an example, the authors apply the LIM to the literature on resilience, providing a multilevel conceptualization. This is a timely contribution, as resilience has emerged as a central concept addressing interorganizational survival during the COVID-19 pandemic.

Originality/value — This paper makes three main contributions to business marketing. First, this paper provides a methodological contribution by introducing the critical realist notion of "laminated systems" to business marketing. Second, this paper conceptualizes a specific laminated model for business marketing, namely, the LIM. Third, as a response to the COVID-19 pandemic, this paper will apply critical realism and the LIM to the notion of resilience, addressing the calls for multilevel conceptualizations.

Keywords Critical realism, Resilience, Multilevel research, COVID-19, Laminated system, Relational emergence

Paper type Conceptual paper

1. Introduction

This article makes a methodological contribution by introducing the critical realist notion of "laminated systems" to business marketing research (Bhaskar, 2014; Elder-Vass, 2010; Collier, 1989). By a laminated system, we are referring to the critical realist understanding of multilevel research that counters common reductionist tendencies in human sciences (Bhaskar, 2014). In addition, this article conceptualizes the Laminated Interactional Model (LIM) as a specific application of a laminated system for the purposes of business marketing research. Problematically, even for scholars familiar with critical realism, it is not always clear how to apply laminated systems to a specific research context (Bhaskar, 2014). "[...] even when one has begun to grasp some principles of basic

The current issue and full text archive of this journal is available on Emerald Insight at: https://www.emerald.com/insight/0885-8624.htm



critical realism, it will not be obvious how exactly one is to 'do it'[...] indeed it is something of a scandal [for] the critical realist community [...]" (Bhaskar, 2014, p. 5). This article seeks to address this gap in the literature by conceptualizing the LIM for the purposes of business marketing research. The LIM includes causal mechanisms at six levels of relational emergence, including the network, exchange relationship, firm, association, interaction group and individual levels of analysis. This is counter to the common arguments to reduce causal explanations to individuals, as is done by methodological

© Markus Vanharanta and Phoebe Wong. Published by Emerald Publishing Limited. This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence may be seen at http://creativecommons.org/licences/by/4.0/legalcode

Received 31 January 2021 Revised 5 August 2021 13 November 2021 1 April 2022 Accepted 26 April 2022

Volume 37 · Number 10 · 2022 · 2010-2021

individualism and various positivist positions, in addition to some social constructionist methods (Crotty, 2020; Harre, 2005; Sawyer, 2002; Coleman, 1990).

To demonstrate the application of the LIM, we will apply the LIM to the notion of resilience, namely, the organizational ability to rapidly recover from disruptive episodes (Sheffi, 2007; Sharma et al., 2020). This is a timely undertaking, as resilience is emerging as a central research theme in business marketing, addressing interorganizational coping with the COVID-19 pandemic (Rapaccini et al., 2020; Zafari et al., 2020; Sharma et al., 2020; Ritter and Pedersen, 2020; Hughes et al., 2020). Furthermore, our contribution addresses the persistent calls for an improved multilevel understanding of resilience (Linnenluecke, 2017; Sutcliffe and Vogus, 2003), for which the laminated approach provides a well-theorized explanation.

As this is a conceptual paper, the theorizing is exclusively based on literature, triangulating between business marketing and critical realism, combining pre-existing theoretical ideas in a new way. We will begin the article by reviewing past literature on critical realism and introducing critical realist causal explanations and laminated systems. We will then formulate the LIM-based critical realism and business marketing literature. This is followed by a theoretical application of the LIM to "resilience" as a timely response to the COVID-19 pandemic. Finally, we will provide a short case vignette and discuss the potential limitations of the critical realist approach. We will end the article by considering directions for future research.

2. Critical realism

Critical realism has been extensively applied to business marketing research over the past two decades (Easton, 2010; Peters et al., 2013; Ryan et al., 2012; Easton, 2002; Farquhar et al., 2020), drawing upon the philosophical writings by Bhaskar (1975, 1979/1998), Archer (1995) and Saver (1999), among others. Critical realism was initially formulated as a critique of the positivist research tradition that dominated social science up until the 1960s (Archer et al., 1998, p. 10) while more recently offering a robust critique of the poststructural or postmodern research traditions (Sayer, 1999; López and Potter, 2005). In this article, we make a methodological contribution to critical realist research by introducing laminated systems to business marketing. Laminated systems allow for multilevel research based on the critical realist ontology. In addition, we will conceptualize a specific laminated system, the LIM, that is designed specifically for the purpose of business marketing research. We will first begin by outlining the critical realist model of causation, followed by the laminated systems and the LIM.

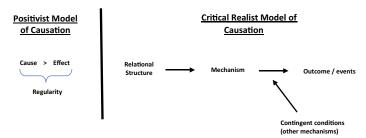
2.1 Critical realist model of causation

Critical realist theorizing starts from a relatively pessimistic understanding of the potential of social sciences, including skepticism regarding knowledge claims based on event regularities (Collier, 1994; Bhaskar, 1979/1998). This pessimism stems, in part, from the open system nature of the human sciences, which does not allow for strictly controlled experiments (Sayer, 1992; Collier, 1994). For example, in line with this critical realist critique, human sciences have been plagued by persistent difficulties in replicating old findings, also known as the replication crisis (LaPlante, 2019; Amrhein et al., 2019; Wiggins and Christopherson, 2019; Oberauer and Lewandowsky, 2019; Frias-Navarro et al., 2020). This understanding is also applicable to business marketing research as "all business relationships and networks operate in an opensystem context, where unforeseen outside influences will continue to disrupt regular occurrence of events" (Ryan et al., 2012, p. 308). Figure 1 compares the positivist and critical realist models of causation. The open system condition disrupting regular activation of mechanisms is illustrated by the notion of "contingent conditions" (Figure 1). For example, Sayer (1999, p. 14) has maintained that "what causes something to happen has nothing to do with the number of times we have observed it happening." Instead, critical realist causal explanations focus on structures and their mechanisms, which may (or may not) become activated to generate events. This means that critical realism rejects the commonly held positivist understanding of causation that relies on constant conjunctions of events (Figure 1) (Bhaskar, 1975). A key aspect of the critical realist methodology is instead the separation between structures, mechanisms and events (Bhaskar, 1975, 1979/1998).

2.2 Laminated systems

"Laminated systems" refer to a multilevel research methodology that is consistent with the critical realist ontological commitments, including the model of causality outlined in Figure 1. The laminated systems are formed by the mechanism of "emergence," generating multiple levels of analysis. In short, emergence refers to the idea that the whole "can have properties or capabilities that are not possessed by its parts" (Elder-Vass, 2010, p. 4). Thus, to capture these emergent properties of the whole, there is a need for multilevel

Figure 1 Comparison of the causation between positivism and critical realist model of causality based on Sayer (1999, pp. 14–15)



Volume 37 · Number 10 · 2022 · 2010-2021

causal explanations. In natural sciences, the use of laminated models is relatively straightforward, as different levels (or strata) of emergence often follow well-established disciplinary boundaries. For example, the emergent properties of water are very different from the properties of hydrogen and oxygen, as was already recognized by Mill (1869). The resulting multilevel laminated relationship between chemistry and physics has been outlined by Bhaskar (1998, p. 66), whereby the higher-level stratum of chemistry is necessarily dependent upon the existence of the lower levels (Figure 2).

In social science, the critical realist laminated approach was first used to capture the multifaceted problems caused by disability (Bhaskar and Danermark, 2006). Accordingly, several levels of analysis were combined together to more comprehensively describe problems associated with disability. This included physical, biological, psychological, psychosocial, socioeconomic, sociocultural and normative levels of analysis (Bhaskar and Danermark, 2006). Laminated systems offer several benefits for social sciences and for business marketing research. First, laminated systems counter the tendency to "[...] flatten or one-dimensionalize [...] reality" paving the way for genuine multilevel analysis (Bhaskar, 2014, p. 10). Accordingly, laminated systems can be used to capture causation at multiple levels of analysis. Second, laminated systems can facilitate interdisciplinary research projects, as different levels of analysis are sometimes explained by different disciplines (Bhaskar, 2014). For example, the laminated approach to investigating disability included various interdisciplinary angles, recognizing that disciplinary boundaries may be an artificial and/or unhelpful barrier to comprehensively understanding a social phenomenon (Bhaskar and Danermark, 2006). Finally, laminated systems can ease the methodological application of critical realism by providing a template to guide multilevel research projects. For example, the LIM introduced in this article can be used as a methodological template to guide multilevel business marketing research at six levels of analysis. But also, multilevel analysis is a necessary aspect of critical realist research to stay true to its ontological commitments (Bhaskar, 2014).

Next, we introduce the specific critical realist notion of emergence to business marketing research, namely, "relational emergence." This specific critical realist definition helps us to avoid misunderstandings, as there are various divergent definitions of emergence that should not be confused with critical realist research (Sawyer, 2005; Elder-Vass, 2010). Conveniently, for business marketing research, however, "relational emergence" is based on relationships corresponding directly with the relational emphasis in the business marketing

Figure 2 Laminated explanation in natural sciences

Stratum I	$2Na + 2HCl = 2NaCl + H_2$	
Stratum II	theory of atomic number and valency explained by	Mechanism 1
Stratum III	theory of electrons and atomic structure explained by	Mechanism 2
Stratum IV	[competing theories of sub-atomic structure]	Mechanism 3

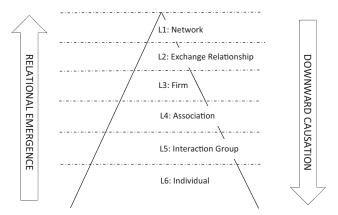
Source: Bhaskar (1998, p. 66)

research (Morgan and Hunt, 1994; Håkansson, 1982; Ford et al., 2003). Based on relational emergence, new properties "arise because of [an internal] relationships that hold between the parts in a particular kind of whole" (Elder-Vass, 2010, p. 20). For example, in business marketing, a buyerseller relationship is an internal relationship, as it brings about new emergent powers, such as the properties of exchange, that cannot be found in its constituent parts in isolation (Ryan et al., 2012). Relational emergence, thus, addresses the emergence of new causal powers based on internal relationships (Saver, 1992). In contrast, unrelated or contingent relationships do not have emergent properties. For example, for the purposes of business marketing, the relationship between a firm and today's weather is, most likely, merely a contingent relationship. In addition, the emphasis on relationships has the additional benefit of being one of the most enduring aspects of social life: "in social life, only relations endure [...] relationships between people and nature and social products (such as machines and firms), as well as interpersonal ones" (Bhaskar, 1979/1998, p. 41). For example, the relational structures of a university can endure for centuries, including the general relational structures between professors and students, even if particular students and professors are over the years replaced by others.

3. Laminated interactional model

Next, we will conceptualize the LIM as a methodological tool to facilitate critical realist multilevel research. The LIM contributes to business marketing by combining pre-existing critical realist theory and business marketing literature in a new way. In the proposed model, we will use Level 1 (or L1) to capture the highest level of the "whole" of the business marketing discipline. In business marketing, this is often regarded as the overall network of business relationships (Axelsson and Easton, 1992; Håkansson et al., 2009). L1 is then decomposed into its constituent parts at the lower levels L2, L3 and Ln, in accordance with relational emergence (Elder-Vass, 2010) (Figure 3). In this article, we designate L2 as the relational structures of exchange relationships and L3 as the relational structures of a firm, drawing upon past critical realist contributions in business marketing (Ryan et al., 2012; Peters et al., 2013; Easton, 2002). In addition, we add three new levels to the explanation based on pre-existing critical

Figure 3 Laminated interactional model of business marketing



Volume 37 · Number 10 · 2022 · 2010-2021

realist literature (Elder-Vass, 2010), namely, association (L4), interaction group (L5) and individual levels (L6) (Figure 3). Based on relational emergence, the existence of all higher-level structures is necessarily dependent upon the existence of the lower-level structures (Bhaskar, 2014). Also, based on the critical realist ontology, the higher-level structures can causally influence back at the lower-level structures, which is known as "downward causation" (Figure 3) (Elder-Vass, 2010; Bhaskar,1979/1998, 2014).

In business marketing literature, there is a long-standing tradition to recognize the importance of multiple levels of analysis: "the words network and relationships indicate that there is some kind of special organizational form at an aggregate level above that of individual companies [...]" (Håkansson and Ford, 2002, p. 133). The critical realist ontology can be used to provide a more specific expression of this multilevel conceptualization. This is done by replacing the vagueness of an "aggregate level" with a clearly articulated laminated system consisting of the relational structures of business marketing at multiple levels of analysis. The problem with an aggregate construct, such as a mathematical aggregate, is the potential loss of the various structural properties of business marketing. As a methodological lens, the LIM seeks to ensure that relational structures are retained at multiple levels of analysis, as these structures are regarded as an essential part of business marketing. The critical realist approach is, thus, diametrically opposed to methodological approaches that "carve up the object of study with little or no regard for its structure and form" (Saver, 1992, p. 138).

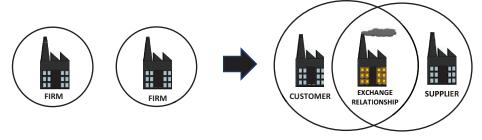
According to critical realism, the network (L1) is recognized as a meaningful level of analysis in its own right. But in addition, based on critical realism, the network (L1) is recognized to have relatively autonomous causal powers. This means that the network, as a higher stratum, is "capable of reacting back on the [lower levels]," also known as downward causation (Bhaskar, 2008, p. 397) (Figure 3). This means that the network (L1) has the power to enable as well as constrain the lower-level relational structures at L2, L3 and Ln. This ontological commitment is sometimes implied in business marketing literature, such as the viewpoints advocated by many

IMP Group of researchers: "[...] companies within a network are not free to act according to their own aims [...] as the network of existing relationships is also severe limitations on a single company [...] change by companies and change within companies occurs through changes to the structure of the network" (Håkansson and Ford, 2002, p. 135). What critical realism adds to this explanation is an explicit articulation of downward causation, including its philosophical justifications and methodological implications that follow (Elder-Vass, 2010; Bhaskar, 1979/1998).

Exchange relationships between firms (L2) are similarly relational structures that bring about new emergent causal power (Figure 4). These mechanisms have been extensively evaluated by business marketing literature over the past several decades, including the properties of exchange, long-term business relationships of trust, actor bonds, activity links, joint capabilities, mutual adaptations and various types of contractual arrangements, among other properties (Håkansson, 1982; Morgan and Hunt, 1994; Ford et al., 2003; Axelsson and Easton, 1992). Exchange relationships (L2) are both enabled and constrained by the network level (L1) but, at the same time, necessarily dependent upon the existence of firms (L3). In this article, we view firms (L3) as an amalgamation of various relational structures, including organizational structures, resource structures, financial structures and legal structures, among others. Organizational structures establish organizational hierarchies, job descriptions and responsibilities and reporting mechanisms. Organizational structures, thus, make it possible for individuals to occupy organizational roles as "actors," whereby an individual as an "actor" acquires new emergent properties as a role occupant such as the position of a manager and CEO (Archer, 1995).

Furthermore, firms' resources and access to external resources form a "resource structure" as firms collect and combine resources from multiple providers (Håkansson, 1992; Håkansson and Snehota, 1995). In addition, firms' existence is also necessarily dependent upon financial structures, including assets and liabilities, and the resulting ability to pay bills, taxes and salaries. Furthermore, firms' existence is dependent on underlying legal structures, including the legal right to engage

Figure 4 Emergent properties of exchange relationships



Exchange relationships are relational structures that bring about new emergent causal powers and liabilities.

Source: Applied to business marketing based on Collier's original image that depicts physics and economics (1998, p. 263)

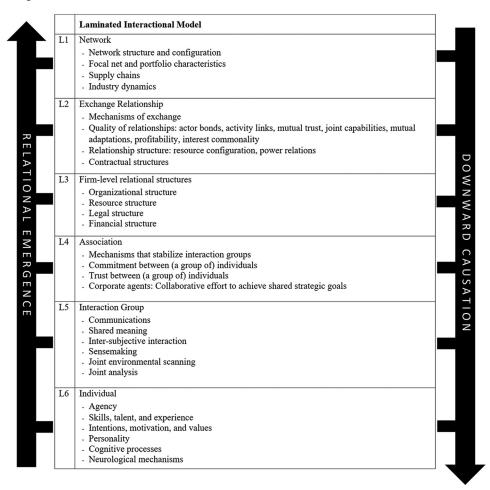
Volume 37 · Number 10 · 2022 · 2010–2021

in commercial transactions, own property, sign contracts and assign corporate officers to act in the name of the firm.

Finally, we will include three lower-level strata to the LIM, namely, individuals (L6), interaction groups (L5) and associations (L4), introducing Elder-Vass' (2010) critical realist theorizing to business marketing research. The LIM, hence, combines pre-existing critical theoretical elements with business marketing literature in a new way. A general description of all six levels of the LIM is summarized in Figure 5. The importance of individuals (L6) is recognized by most mainstream philosophical and methodological positions in social science, making individuals the least controversial level of analysis included in the LIM (Figure 3). At the level of individuals (L6), relevant causal mechanisms include managerial skills, experience, values, intentions and motivation, in addition to various cognitive mechanisms (Figure 5). Here, it is worth noting that relational structures "exist only in virtue of, and are exercised only in human agency" (Bhaskar, 1979/1998, p. 40), whereby the agency of individuals is necessary for the existence of relational structures L1-L5. A detailed theoretical description of the relationships between individuals (L6) and relational structures can be found in critical realist structuration theories (Peters et al., 2013; Bhaskar, 1979/1998; Archer, 1995).

Interaction groups (L5) are a mid-range step between individuals and higher-level relational structures (Elder-Vass, 2010). The importance of interaction and interaction groups is supported by an extensive body of theorizing, including social realist and interpretivist theories. Interaction groups, formed by individuals, allow for the emergence of intersubjective meaning understanding, facilitating discourse collaboration and negotiation, among other properties (Elder-Vass, 2010; Sawyer, 2005) (Figure 5). In addition, no individual can entirely determine what happens in interaction with others, as the trajectory of interaction emerges via interaction. This means that interaction groups have new emergent properties that cannot be found or reduced to individuals, making interaction groups a meaningful level of analysis in their own right (Elder-Vass, 2010; Sawyer, 2005). The importance of interaction has also been recognized outside social realist circles. For example, in symbolic interactionism, meaning arises "in the process of interaction between people [...] [whereby] symbolic interactionism sees meanings as social products, as creations that are formed and through the defining activities of people as they interact" (Blumer, 1969, pp. 4-5). Interaction groups also share some characteristics with Goffman's (1990; 1956) concept of "interaction entities." In business marketing, the emergent properties of interaction

Figure 5 Relational emergence and downward causation in the context of the laminated interactional model



Volume 37 · Number 10 · 2022 · 2010–2021

groups concern sensemaking, shared understanding and alignment of strategic action between managers and firms (Hopkinson, 2015; Lundgren-Henriksson and Kock, 2016; Mattsson et al., 2015; Mouzas et al., 2008; Hopkinson, 2001). For example, a phone call between two managers forms a shortlived interaction group that, for a moment, may enhance understanding between the two parties. It is difficult to think of functioning business relationships without interaction groups and resulting emergent properties of sensemaking. More specifically, sensemaking has been defined as "the process through which people work to understand issues or events that are novel, ambiguous, confusing, or in some other way violate expectations" (Maitlis and Christianson, 2014: 57). Furthermore, in business marketing literature, sensemaking has been linked to extensive literature on "network picturing" that addresses managerial understanding (or knowledge structures) of the higher-level network properties (Abrahamsen et al., 2016; Henneberg et al., 2010).

The final relational structure included in the LIM is "association" (L4), building upon the underlying mechanism of individuals and interaction groups (Elder-Vass, 2010). The association addresses one of the central challenges of social interaction, namely, its instability and fleeting duration. Associations, thus, have additional emergent properties that increase the stability of interaction groups beyond a single episode. There are various documented means to increase the stability of social interaction, including the importance of material objects that are passed from one interaction episode to the next (Latour, 1996). In addition, the critical realist theorizing by Elder-Vass (2010) emphasizes the importance of "commitments" as a stabilizing mechanism (Figure 5). Commitments have also been strongly featured in the business marketing literature (Lenney and Easton, 2009; Andersen and Medlin, 2016; Ford et al., 1998; Morgan and Hunt, 1994). For example, in a review of business marketing literature, Ford et al. (1998) mention "commitments" no less than 28 times, covering a broad range of topics, including buyer-seller relationships, adaptations, costs, evaluation, investment, knowledge, management, strategy, technology and trust. Ford et al. (1998, p. 29) emphasize the importance of mutual commitments as a stabilizing factor, allowing a business relationship to advance from the exploratory stage to the developing stage and to the stable stage. Commitments can refer to not only a shared strategic direction but also low-level activity linkages between people, such as, "I will make sure that you are informed earlier next time" (Lenney and Easton, 2009, p. 553). Such lower-level transient commitments are defined by Andersen and Medlin (2016, p. 11) as "the activities are undertaken by two or more social actors, according to changing, provisional, or implied agreements for carrying out future actions." According to Andersen and Medlin (2016), transient commitments are in a dynamic state of becoming, providing a good explanation of the never-ending change in network dynamics. In business marketing, commitments do not operate in isolation but are combined with various other mechanisms. For example, business marketing literature often combines the mechanisms of commitments and trust (Figure 5). For example, the Commitment-Trust Theory has accumulated over 31,000 citations (Morgan and Hunt, 1994). Accordingly, commitment is an "important way to earn the

trust of its partner so that I can come to expect similar commitment in return" (Ford et al., 2003, p. 54). Commitments are also important outside social realist literature. For example, Weick (2001, p. 27) argues that commitments are a mechanism that can be used to explain structuration: "organizing begins with moments of commitment," whereby irrevocable public commitment determines the scope of meaning that is available to make sense of events.

The LIM emphasizes the importance of linkages between the levels. All of the six levels (L1–L6) are causally linked to each other via relational emergence and downward causation (Figure 5). The laminated levels of analysis are, thus, all interdependent and influenced by each other, whereby structural changes at one level can influence all other levels. Furthermore, managerial interventions can leverage all six levels of analysis. For example, a planned improvement in (L2) an exchange relationship may benefit from (L6) improved managerial capabilities, (L5) intersubjective understanding between managers, (L4) strategic commitments to initiate and carry through required changes, (L3) changes to firm-level structures, such as budgets to facilitate interorganizational changes, and (L1) accommodating network characteristics.

4. Resilience

Next, we will provide a more detailed illustration of the LIM based on pre-existing business marketing literature on resilience. This multilevel conceptualization is a timely contribution, as resilience is emerging as one of the central business marketing themes addressing organizational coping during the pandemic (Rapaccini et al., 2020; Zafari et al., 2020; Sharma et al., 2020; Ritter and Pedersen, 2020; Hughes et al., 2020). For example, Sharma (2020) has argued that resilience is a critical aspect of business marketing during the COVID-19 pandemic. Broadly speaking, resilience refers to the ability of a system "to withstand a major disruption [...] and to recover within an acceptable time and composite costs and risks" (Haimes, 2009, p. 498). Other mainstream definitions address flexible responses to a crisis, including resource slack, which can absorb external shocks, and adaptive responses that increase resilience based on organizational learning (Meyer, 1982). In addition, foresight can be seen as a form of resilience allowing organizations "to recognize, anticipate, and to defend against the changing shape of risk before adverse consequences occur" (Haimes, 2009, p. 498). Other concepts that have been linked to resilience in business marketing include entrepreneurial preparedness (Rapaccini et al., 2020), mindfulness as continuous sensemaking (Zafari et al., 2020) and organizational preparedness (Ritter and Pedersen, 2020).

The LIM contributes to our understanding of resilience by addressing the persistent calls for multilevel explanations: "resilience in organizations can be brought about by factors on various levels [...] [but] there are currently few insights into how these different levels of analysis are linked to each other and resilience can potentially 'scale up'" (Lilienfeld, 2017, p. 25). Addressing this gap in literature, critical realism provides a well-theorized multilevel explanation, as "scaling up" and linkages between levels have already been explained by relational emergence and downward causation (Elder-Vass, 2010; Bhaskar and Danermark, 2006; Bhaskar, 2014). In the

Volume 37 · Number 10 · 2022 · 2010–2021

following, we will use the LIM to provide a multilevel conceptualization of resilience in the context of business marketing. The key mechanisms are summarized in Figure 6, using the six levels of the limited model in accordance with the LIM. Figure 6 is a direct application of the standard critical realist model of causation introduced in Figure 1, closely mirroring Sayer (1992, p. 109).

Resilience: Individuals (L6). The agency and resilience of individuals have an essential role in adaptive organizational response to a crisis (Meyer, 1982; Zafari et al., 2020). Business marketing literature identifies several mechanisms associated with the resilience of individuals, including experience (Zafari et al., 2020), perseverance (Bande et al., 2015; Luthans et al., 2006), mindfulness (Zafari et al., 2020) and entrepreneurial preparedness (Muñoz et al., 2019). Furthermore, bricoleur skills can facilitate individuals' ability to creative modify social order under pressure using pre-existing resources at hand (Levi-Strauss, 1966; Weick, 2001). These mechanisms are depicted in Figure 6. But in addition, individuals also function as actors occupying roles within relational structures (L1–L5), for example, the role of a Marketing Director. Thus, individuals are always the initiators and facilitators of resilience at all levels of relational emergence.

Resilience: Interaction Groups (L5). Resilience in business marketing is facilitated by mechanisms associated with intersubjective understanding and sensemaking, including verification of cues and other interpretations (Zafari et al., 2020). Furthermore, regular informal communications between actors

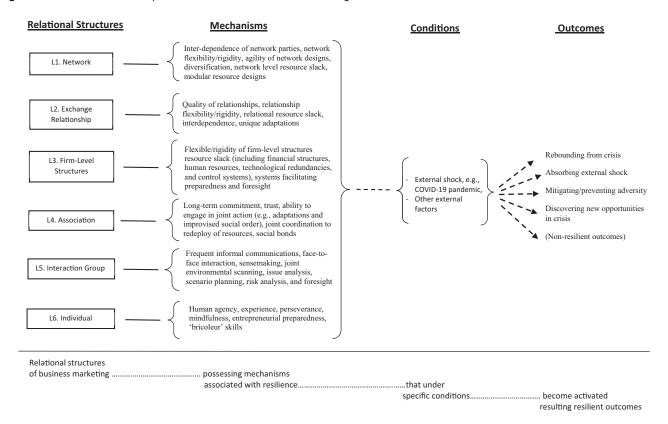
have been recognized as means to facilitate rapid reaction to a crisis (Zafari *et al.*, 2020), including the use of face-to-face communications (Weick, 2001).

Furthermore, business marketing literature identifies the importance of foresight (Haimes, 2009) which can be enhanced by joint "environmental scanning, forecasting, issue analysis, scenario planning, and risk analysis to develop organizational preparedness" (Ritter and Pedersen, 2020, p. 217). These mechanisms are summarized in Figure 6.

Resilience: Associations (L4). Associations and related commitments have a crucial role in facilitating organizational and interorganizational resilience during a crisis. This includes the way associations work to stabilize social ordering during turbulent times. In addition, Weick (2001) has identified the importance of commitments in overcoming paralysis if a crisis destabilizes the pre-existing organizational order (Figure 6). Commitments and trust have also been associated with organizational resilience as facilitators of joint strategic action, such as the movement of resources from one organization to another during the COVID-19 pandemic (Zafari et al., 2020). Also, resilience is related to the strength of social bonds during a crisis, facilitating communications and intersubjective understanding between managers (Zafari et al., 2020).

Resilience: Firm-level relational structures (L3). At the level of the firm, resilience concerns both firm's resource slack and the firm's adaptive capability during a crisis (Haimes, 2009; Vogus and Sutcliffe, 2007; Meyer, 1982; Linnenluecke, 2017). While

Figure 6 Critical realist causal explanation of resilience in business marketing literature



Source: Apapted from Sayer (1992, p. 109)

Volume 37 · Number 10 · 2022 · 2010–2021

resource slack is primarily based on the preparations made before a crisis, adaptive capability concerns the organizational ability to make timely adjustments during a crisis (Figure 6). Resource slack can be used to absorb unforeseen shocks, for example, slack financial structures, human resources, technological capabilities and control systems (Meyer, 1982). In addition, in business marketing literature, it has been recognized that firms' resilience is enhanced by flexible firm-level relational structures. This flexibility can allow for meaningful adaptation to unexpected external shocks. This concerns adaptation in terms of both variety and value (Rapaccini et al., 2020). In addition, flexible organizational structures can be used to empower experienced managers during a crisis, to enhance the resilience of business marketing operations (Rapaccini et al., 2020).

Resilience: Exchange relationships (L2). Organizational resilience is often influenced by exchange relationships and linkages with other firms. This concerns both adaptive response to a crisis and resource slack to absorb unexpected shocks (Linnenluecke, 2017). As many of the firm's resources are dependent or controlled by other firms, some of the resource slack may be influenced by the quality of firms' relationships with other firms, including mutual trust, contractual obligations and power relations. Accordingly, past studies have identified that the quality of business relationships can enhance resilience during a crisis (Van Der Vegt et al., 2015; Wieland and Wallenburg, 2013; Linnenluecke, 2017). As an example, outsourcing a sales force may provide additional flexibility increasing resilience, in particular, if a firm is able to retain the knowledge of the sales function inside the firm (Sharma et al., 2020). However, during a crisis, strong interdependence with other firms is also a potential risk factor (McCann and Selsky, 2012; Syrett and Devine, 2012), which calls for continuous adjustment of relationship exposure via mindful relationship management (Zafari et al., 2020). These risks include unique processes and adaptations made for a partner organization (Anderson and Jap, 2005).

Resilience: Network (L1). At the network level, resilience relates to both the flexibility and rigidity of network-level relational structures (Figure 6). For example, modular resource designs may allow for more dynamic reconfiguration of resources in a value network by making resources more interchangeable (Linnenluecke, 2017). This modular design applies to production facilities, stocks and materials (Kleindorfer and Saad, 2005; Pettit et al., 2010), facilitating rapid reconfiguring of value networks (Rapaccini et al., 2020). Also, the diversification of supply networks can be used to reduce risks, including diversification across suppliers, production sites and modes of transportation (Craighead et al., 2007; Jüttner and Maklan, 2011). Other related contributions include the literature on agile supply network designs and flexible supply chain solutions, specifically designed for unpredictable businesses environments (Christopher, 2000). However, business marketing literature also recognizes that network interdependence may diminish resilience by reducing firms' autonomy and flexibility during a crisis. In a business network, firms are not free to act purely based on their own objectives, which may impose stringent limitations on individual firms (Håkansson and Ford, 2002). For example, during the September 11, 2001 terrorism attack in New York,

highly interdependent networks were observed to reduce firms' resilient response to the crisis (Caniato and Rice, 2003).

Figure 6 also includes several outcomes associated with resilience, in accordance with the critical realist model of causation (Sayer, 1992). These outcomes include successful rebounding from a crisis, preventing or mitigating adverse consequences, turning disruption into a new opportunity and nonresilient outcomes (Haimes, 2009; Linnenluecke, 2017). Here, it is helpful to note that the critical realist model of causation provides a nondeterministic understanding of resilience. Thus, relational structures or mechanisms cannot determine resilient outcomes in advance. Indeed, the resilient potential of a firm may not be fully known until after a crisis (Linnenluecke, 2017). In addition, resilient potential needs to be successfully activated, which can be challenging during a crisis. Mechanisms that have been associated with the timely activation of latent resilient potential include managerial mindfulness and foresight and the availability of accurate and timely information about an unfolding crisis (Burnard and Bhamra, 2011; Zafari et al., 2020).

4.1 Case vignette

Next, we will use a short case vignette to briefly highlight some mechanisms outlined in Figure 6 in relation to the disruption caused by COVID-19. The case vignette is used purely for illustrative purposes, as the theorizing in this article, including the conceptualization of the LIM, was derived from literature. Accordingly, we seek to make no empirical claims or generalizations to theory based on the case vignette. The case draws upon an unstructured interview with the Managing Director of an international electronic control manufacturer Electro Ltd (name anonymized), in 2020. In March 2020, because of the pandemic, Electro Ltd experienced a rapid shock to its operations as manufacturers, sales agents and retailers suddenly cancelled and postponed orders. These disruptions resulted in a severe shock to the entire industry, including disrupted industry supply chains (L1), disruptions to operating activities of key customers and supplier relationships (L2) and rapid deterioration of Electro's revenues and profitability (L3). Many of the mechanisms associated with resilience, illustrated in Figure 6, however, allowed Electro to rebound from the crisis. This included network level (L1) resource slack, based on Electro's diversified supply network in multiple countries (Craighead et al., 2007; Jüttner and Maklan, 2011). Because of its modular production and product designs, Electro was able to flexibly shift supply chains from one country to another (Kleindorfer and Saad, 2005; Pettit et al., 2010). For example, as the disruptions between China and India varied over time, Electro was able to work around regional lockdowns and rapidly reconfigure its international value chains (Rapaccini et al., 2020). At the exchange relationship level (L2), Electro benefitted from the quality of its relationships, allowing for additional adaptive flexibilities in the early stages of the pandemic (Van Der Vegt et al., 2015; Wieland and Wallenburg, 2013). In contrast, the risk and rigidities that have been associated with relationship interdependencies did not materialize (Anderson and Jap, 2005). At the firm level (L3), resource slack was a significant mechanism that allowed Electro to absorb the shock (Haimes, 2009). Most notably, Electro's strong cash reserves were used to cushion the impact of rapidly

Volume 37 · Number 10 · 2022 · 2010–2021

deteriorating sales and profitability. Financial reserves were, hence, used to sustain many of its existing operations, to buy time, in the hope that stronger sales would return in the second half of 2020. Also, Electro's flexible organizational structure allowed for adjustments to the pandemic, increasing the overall resilience of the firm (Meyer, 1982; Linnenluecke, 2017). This included rapid reduction of temporary and unskilled staff numbers (L3 and L6). But in addition, the flexible organizational structure (L3) empowered its more experienced managers (L6) to make required adjustments during the crisis (Zafari et al., 2020). At the level of interaction groups (L5), Electro benefitted from its frequent informal communications with established partner organizations, improving sensemaking during the crisis (Zafari et al., 2020; Weick, 2001). While the absence of face-to-face communications made it more difficult to establish new business relationships (L2), electronic communications were sufficient to sustain operations with preexisting relationships (L2). This was helped by various associations (L4), including intersubjective commitments and mutual trust between key actors, and by pre-existing contractual arrangements between firms (L2) (Zafari et al., 2020; Ford et al., 2003). At the level of individuals (L6), Electro benefitted from its highly experienced managers, which stayed together, as a team, during the pandemic, demonstrating considerable perseverance (Bande et al., 2015; Luthans et al., 2006). While Electro's managerial team did not anticipate the crisis, these managers demonstrated mindfulness in their adaptation to the crisis (Zafari et al., 2020). As an outcome, Electro was successful in rebounding from the pandemic disruptions. Sales begun to recover already in the second half of 2020. Also, Electro managed to sustain its strong industry position and key business relationships, without losing market share. Furthermore, the case vignette briefly touches upon some aspects of relational emergence and downward causation, namely, the interlinkages between all six levels of analysis. For example, the resilience of exchange relationships (L2), financial resilience (L3) and the resilience of individual managers (L6) was helpful in improving the resilience of other levels and the overall resilience of the whole enterprise.

5. Discussion

There are several limitations associated with the critical realist approach developed in this article that needs to be acknowledged. First, critical realism remains a contested philosophical position, including vibrant theoretical debates within the critical realist community (Harre, 2005; Elder-Vass, 2010). For this reason, the core ideas put forward in this article are consistent with the early writing of Roy Bhaskar, which are the least contested part of the critical realist literature (Bhaskar, 1979/1998; Elder-Vass, 2010; Sayer, 1992; Collier, 1994). Also, we have excluded more contested theoretical developments associated with Dialectical Critical Realism (Bhaskar, 2008) and Meta-Reality (Bhaskar, 2002).

Second, critical realism is often criticized for the claimed autonomous ontological status of relational structures (Sawyer, 2005; Harre, 2005; Coleman, 1990), including the claimed autonomy of the network and exchange relationships as legitimate levels of analysis. For example, Harre (2005) criticizes the critical realist positions by arguing that individuals

are the powerful particulars of the social world, whereby the relational structures are merely an epiphenomenon and, thus, reducible to individuals. Indeed, if relational structures depend on individuals, as is acknowledged by critical realism, then how is it possible for relational structures to have autonomous causal powers? Here, it is helpful to recognize that critical realism only argues for the relative autonomy of relational structures, which stems from an intertemporal analytic separation between individuals and structures (Archer, 1995). This intertemporal separation refers to the way we were all born into a structured world that pre-existed us. For example, a child cannot influence hihe/sher life prospects, such as resources available to support hihe/sher wellbeing. In the same way, pre-existing relational structures condition business marketing managers (in every episode of interaction) before managers can influence back at these structures (Peters et al., 2013). For example, as an individual becomes employed as a manager, the structures of the position will both limit and enable hihe/sher decisionmaking and scope of managerial action (Peters et al., 2013). Thus, based on this analytic distinction, relational structures (L1-L5) can be seen to have relatively independent causal powers that both enable and restrict individuals via downward causation (Peters et al., 2013). A more comprehensive discussion of the underlying philosophical debates can be found in other sources (Harre, 2005; Norrie, 2010; Sayer, 1992; Archer, 1995; Archer et al., 1998; Collier, 1998; Morgan, 2003; Creaven, 2014).

Third, it is worth noting that within the broad scope of social realism, there are other theories addressing emergence that are often incompatible with the critical realist causal explanation. For example, the Emergence Paradigm model by Sawyer (2005) uses similar terminology of "individuals," "interaction," "ephemeral emergents," "stable emergents" and "social structures," which can be easily confused with the critical realist explanation. The underlying ontological differences are discussed in detail by Sawyer (2005, pp. 80–85).

Finally, the theorizing of this article is derived from literature by combining pre-existing theoretical ideas in a new way. While this literature-based approach provides a well-justified theoretical explanation, it leaves considerable scope for additional development via empirical research. For example, the explanation provided by the LIM can be further expanded by including new mechanisms and additional levels of analysis. Thus, the LIM should not be seen as a complete template but merely as a heuristic starting point for using critical realist laminated systems in business marketing research.

6. Conclusions

This article makes two main contributions. First, we make a methodological contribution by introducing the critical realist notion of "laminated systems" to business marketing research (Bhaskar, 2014; Elder-Vass, 2010; Collier, 1989). In addition, we conceptualize a specific laminated model, namely, the LIM. LIM provides a ready-made multilevel research template for business marketing research, consisting of six levels of analysis: 1. the network, 2. exchange relationships, 3. firm-level relational structures, 4. associations, 5. interaction groups and 6. individuals. The levels are linked together via relational emergence and downward causation. The LIM addresses a key

Volume 37 · Number 10 · 2022 · 2010–2021

methodological gap, namely, the lack of critical realist laminated models in the business marketing literature (Bhaskar, 2014). Accordingly, the LIM is designed to ease the application of critical realist multilevel research in business marketing.

Second, we apply the LIM to the notion of resilience. LIM addresses a key gap in resilience literature by explicitly articulating the linkages between different levels of analysis based on relational emergence and downward causation (Linnenluecke, 2017). This conceptualization of resilience is a timely contribution, as it relates to interorganizational coping with the disruptions caused by the COVID-19 pandemic (Rapaccini et al., 2020; Zafari et al., 2020; Sharma et al., 2020; Ritter and Pedersen, 2020; Hughes et al., 2020). In addition, this article introduces several new critical realist concepts to business marketing, including the concepts of relational emergence, interaction groups and associations (Elder-Vass, 2010).

As a managerial implication, the LIM can be used as a relatively straightforward managerial template to understand interorganizational processes at multiple levels. Overall, the LIM guides interorganizational management and problemsolving towards a multilevel approach, whereby business marketing is viewed as a multilevel phenomenon, which cannot and should not be reduced to a single level of analysis. Finally, we wish to suggest the following directions for future research. The introduction of laminated systems results in new methodological means to deploy critical realism in business marketing research. The specific model proposed in this article, the LIM, is intended as an inclusive methodological lens that can be further expanded by future research. Furthermore, while we have used the LIM to theorize the multilevel nature of resilience, the LIM can be applied and extended to include other areas of business marketing. Overall, we hope that the critical realism and laminated systems will inspire a new trajectory of research that leverages the full explanatory power of critical realism in business marketing research.

References

- Abrahamsen, M.H., Henneberg, S.C., Huemer, L. and Naudé, P. (2016), "Network picturing: an action research study of strategizing in business networks", *Industrial Marketing Management*, Vol. 59, pp. 107-119.
- Amrhein, V., Trafimow, D. and Greenland, S. (2019), "Inferential statistics as descriptive statistics: there is no replication crisis if we don't expect replication", *The American Statistician*, Vol. 73 No. sup1, pp. 262-270.
- Andersen, P.H. and Medlin, C.J. (2016), "Transient commitments and dynamic business networking", *Industrial Marketing Management*, Vol. 58, pp. 11-19.
- Anderson, E. and JAP, S.D. (2005), "The dark side of close relationships", MIT Sloan Management Review, Vol. 46, p. 75.
- ARCHER, M. (1995), Realist Social Theory: The Morphogenetic Approach, Press Syndicate of the University of Cambridge, Cambridge.
- Archer, M., Bhaskar, R., Collier, A., Lawson, T. and Norrie, A. (1998), Critical Realism: Essential Readings, Routledge, London.

- Axelsson, B. and Easton, G. (1992), *Industrial Networks: A New View of Reality*, Routledge, London.
- Bande, B., Fernández-Ferrín, P., Varela, J.A. and Jaramillo, F. (2015), "Emotions and salesperson propensity to leave: the effects of emotional intelligence and resilience", *Industrial Marketing Management*, Vol. 44, pp. 142-153.
- Bhaskar, R. (1979/1998). The Possibility of Naturalism, Routledge, London.
- Bhaskar, R. (1975), A Realist Theory of Science, Leeds Books, Leeds.
- Bhaskar, R. (1998), "Philosophy and scientific realism", in Archer, M.S., Bhaskar, R., collier, A., Lawson, T. and Norrie, A. (Eds), *Critical Realism: Essential Readings*, Routledge, London.
- Bhaskar, R. (2002), Meta-Reality: The Philosophy of Meta-Reality Volume 1: Creativity, Love and Freedom, Sage.
- Bhaskar, R. (2008), *Dialectic: The Pulse of Freedom*, Routledge, London.
- Bhaskar, R. (2014), "Foreword", in Edwards, P.K., O'Mahoney, J. and Vincent, S. (Eds), *Studying Organizations Using Critical Realism: A Practical Guide*, Oxford University Press, Oxford.
- Bhaskar, R. and Danermark, B. (2006), "Metatheory, interdisciplinarity and disability research: a critical realist perspective", *Scandinavian Journal of Disability Research*, Vol. 8 No. 4, pp. 278-297.
- Blumer, H. (1969), Symbolic Interactionism: Perspective and Method, Prentice-Hall Inc, NJ.
- Burnard, K. and Bhamra, R. (2011), "Organisational resilience: development of a conceptual framework for organisational responses", *International Journal of Production Research*, Vol. 49 No. 18, pp. 5581-5599.
- Caniato, F.F.A. and Rice, J. (2003), "Building a secure and resilient supply chain".
- Christopher, M. (2000), "The agile supply chain: competing in volatile markets", *Industrial Marketing Management*, Vol. 29 No. 1, pp. 37-44.
- Coleman, J. (1990), Foundations of Social Theory, Harvard University Press, Cambridge, MA.
- Collier, A. (1989), Scientific Realism and Socialist Thought, Harvester Wheatsheaf/Lynne Rienner, London.
- Collier, A. (1994), Critical Realism: An Introduction to Roy Bhaskar's Philosophy, Verso, London.
- Collier, A. (1998), "Stratified explanation and Marx's conception of history", in Archer, M., Bhaskar, R., Collier, A., Lawson, T. and Norrie, A. (Eds), *Critical Realism: Essential Readings*, Routledge. London.
- Craighead, C.W., Blackhurst, J., Rungtusanatham, M.J. and Handfield, R.B. (2007), "The severity of supply chain disruptions: design characteristics and mitigation capabilities", *Decision Sciences*, Vol. 38 No. 1, pp. 131-156.
- Creaven, S. (2014), Against the Spiritual Turn: Marxism, Realism, and Critical Theory, Routledge.
- Crotty, M. (2020), The Foundations of Social Research: Meaning and Perspective in the Research Process, Routledge.
- Easton, G. (2002), "Marketing: a critical realist approach", *Journal of Business Research*, Vol. 55 No. 2, pp. 103-109.
- Easton, G. (2010), "Critical realism in case study research", *Industrial Marketing Management*, Vol. 39 No. 1, pp. 118-128.

Volume 37 · Number 10 · 2022 · 2010–2021

Markus Vanharanta and Phoebe Wong

- Elder-Vass, D. (2010), *The Causal Power of Social Structures: Emergence, Structure and Agency*, Cambridge University Press.
- Farquhar, J., Michels, N. and Robson, J. (2020), "Triangulation in industrial qualitative case study research: widening the scope", *Industrial Marketing Management*, Vol. 87, pp. 160-170.
- Ford, D., Gadde, L.-E., Håkansson, H. and Snehota, I. (2003), *Managing Business Relationships*, Chichester, Wiley.
- Ford, D., Håkansson, H., Lundgren, A., Shehota, I., Turnbull, P. and Wilson, D. (1998), Managing Business Relationships, John Wiley & Sons, Chichester.
- Frias, Navarro, D., Pascual, Llobell, J., Pascual, Soler, M., Perezgonzalez, J. and Berrios-Riquelme, J. (2020), "Replication crisis or an opportunity to improve scientific production?", *European Journal of Education*, Vol. 55 No. 4, pp. 618-631.
- Haimes, Y.Y. (2009), "On the complex definition of risk: a systems-based approach", *Risk Analysis*, Vol. 29 No. 12, pp. 1647-1654.
- Håkansson, H. (Ed.) (1982), International Marketing and Purchasing of Industrial Goods, John Wiley and Sons, Chichester.
- Håkansson, H. (1992), "Evolution processes in industrial networks", in Axelsson, B. and Easton, G. (Eds.), Networks: A New View of Reality, London.
- Håkansson, H. and Ford, D. (2002), "How should companies interact in business networks?", Journal of Business Research, Vol. 55 No. 2, pp. 133-139.
- Håkansson, H., Ford, D., Gadde, L.-E., Snehota, I. and Waluszewski, A. (2009), Business in Networks, John Wiley & Sons.
- Håkansson, H. and Snehota, I. (1995), *Developing Relationships in Business Networks*, Routledge, London.
- Harre, R. (2005), "How to change reality: story v. structure a debate between Rom Harre and Roy Bhaskar", in Lopes, J. and Potter, G. (Eds), After Postmodernism, Continuum, London.
- Henneberg, S.C., Naudé, P. and Mouzas, S. (2010), "Sensemaking and management in business networks some observations, considerations, and a research agenda", *Industrial Marketing Management*, Vol. 39 No. 3, pp. 355-360.
- Hopkinson, G.C. (2001), "Influence in marketing channels: a sense-making investigation", Psychology and Marketing, Vol. 18 No. 5, pp. 423-444.
- Hopkinson, G.C. (2015), "Network graffiti: interaction as sensemaking", *Industrial Marketing Management*, Vol. 48, pp. 79-88.
- Hughes, P., Morgan, R.E., Hodgkinson, I.R., Kouropalatis, Y. and Lindgreen, A. (2020), "A diagnostic tool to determine a strategic improvisation readiness index score (IRIS) to survive, adapt, and thrive in a crisis", *Industrial Marketing Management*, Vol. 88, pp. 485-499.
- Jüttner, U. and Maklan, S. (2011), "Supply chain resilience in the global financial crisis: an empirical study", Supply Chain Management: An International Journal, Vol. 16 No. 4.
- Kleindorfer, P.R. and Saad, G.H. (2005), "Managing disruption risks in supply chains", *Production and Operations Management*, Vol. 14 No. 1, pp. 53-68.
- Laplante, D.A. (2019), "Replication is fundamental, but is it common? A call for scientific self-reflection and contemporary research practices in gambling-related research", *International Gambling Studies*, Vol. 19 No. 3, pp. 362-368.

- Latour, B. (1996), "On interobjectivity", Mind, Culture, and Activity, Vol. 3 No. 4, pp. 228-245.
- Lenney, P. and Easton, G. (2009), "Actors, resources, activities and commitments", *Industrial Marketing Management*, Vol. 38 No. 5, pp. 553-561.
- Levi-Strauss, C. (1966), *The Savage Mind*, University of Chicago Press, Chicago.
- Lilienfeld, S.O. (2017), "Psychology's replication crisis and the grant culture: righting the ship", *Perspectives on Psychological Science*, Vol. 12 No. 4, pp. 660-664.
- Linnenluecke, M.K. (2017), "Resilience in business and management research: a review of influential publications and a research agenda", *International Journal of Management Reviews*, Vol. 19 No. 1, pp. 4-30.
- López, J. and Potter, G. (2005), After Postmodernism: An Introduction to Critical Realism, A&C Black.
- Lundgren-Henriksson, E.-L. and Kock, S. (2016), "A sensemaking perspective on coopetition. Industrial", *Marketing Management*, Vol. 57, pp. 97-108.
- Luthans, F., Avey, J.B., Avolio, B.J., Norman, S.M. and Combs, G.M. (2006), "Psychological capital development: toward a micro-intervention", *Journal of Organizational Behavior*, Vol. 27 No. 3, pp. 387-393.
- McCann, J. and Selsky, J.W. (2012), Mastering Turbulence: The Essential Capabilities of Agile and Resilient Individuals, Teams and Organizations, John Wiley & Sons.
- Maitlis, S. and Christianson, M. (2014), "Sensemaking in organizations: taking stock and moving forward", *Academy of Management Annals*, Vol. 8 No. 1, pp. 57-125.
- Mattsson, L.G., Corsaro, D. and Ramos, C. (2015), "Sensemaking in business markets the interplay between cognition, action and outcomes", *Industrial Marketing Management*, Vol. 48, pp. 4-11.
- Meyer, A.D. (1982), "Adapting to environmental jolts", *Administrative Science Quarterly*, Vol. 27 No. 4, pp. 515-537.
- Mill, J.S. (1869), A System of Logic, Ratiocinative and Inductive: Being a Connected View of the Principles of Evidence and the Methods of Scientific Investigation, Harper and brothers.
- Morgan, J. (2003), "What is meta-reality? Alternative interpretations of the argument", *Journal of Critical Realism*, Vol. 1 No. 2, pp. 115-146.
- Morgan, R.M. and Hunt, S.D. (1994), "The commitment-trust theory of relationship marketing", *Journal of Marketing*, Vol. 58 No. 3, pp. 20-38.
- Mouzas, S., Henneberg, S. and Naudé, P. (2008), "Developing network insight", *Industrial Marketing Management*, Vol. 37 No. 2, pp. 167-180.
- Muñoz, P., Kimmitt, J., Kibler, E. and Farny, S. (2019), "Living on the slopes: entrepreneurial preparedness in a context under continuous threat", *Entrepreneurship & Regional Development*, Vol. 31 No. 5-6, pp. 413-434.
- Norrie, A. (2010), Dialectic and Difference: Dialectical Critical Realism and the Grounds of Justice, Routledge, London.
- Oberauer, K. and Lewandowsky, S. (2019), *Psychonomic Bulletin & Review*, Vol. 26 No. 5, pp. 1596-1618.
- Peters, L., Pressey, A., Vanharanta, M. and Johnston, W. (2013), "Constructivism and critical realism as alternative approaches to the study of business networks: convergences and divergences in theory and in research practice", *Industrial Marketing Management*, Vol. 42 No. 3, pp. 336-346.

Volume 37 · Number 10 · 2022 · 2010–2021

- Pettit, T.J., Fiksel, J. and Croxton, K.L. (2010), "Ensuring supply chain resilience: development of a conceptual framework", *Journal of Business Logistics*, Vol. 31 No. 1, pp. 1-21.
- Rapaccini, M., Saccani, N., Kowalkowski, C., Paiola, M. and Adrodegari, F. (2020), "Navigating disruptive crises through service-led growth: the impact of COVID-19 on Italian manufacturing firms", *Industrial Marketing Management*, Vol. 88, pp. 225-237.
- Ritter, T. and Pedersen, C.L. (2020), "Analyzing the impact of the coronavirus crisis on business models", *Industrial Marketing Management*, Vol. 88, pp. 214-224.
- Ryan, A., Tähtinen, J., Vanharanta, M. and Mainela, T. (2012), "Putting critical realism to work in the study of business relationship processes", *Industrial Marketing Management*, Vol. 41 No. 2, pp. 300-311.
- Sawyer, R.K. (2002), "Nonreductive individualism: part I supervenience and wild disjunction", *Philosophy of the Social Sciences*, Vol. 32 No. 4, pp. 537-559.
- sawyer, R.K. (2005), Social Emergence: Societies as Complex Systems, Cambridge University Press, New York, NY.
- Sayer, A. (1992), Method in Social Science: A Realist Approach, Routledge, New York, NY.
- Sayer, A. (1999), Realism and Social Science, Sage, London.
- Sharma, A., Rangarajan, D. and Paesbrugghe, B. (2020), "Increasing resilience by creating an adaptive salesforce", Industrial Marketing Management, Vol. 88, pp. 238-246.
- Sheffi, Y. (2007), The Resilient Enterprise: overcoming Vulnerability for Competitive Advantage, Zone Books.
- Sutcliffe, K.M. and Vogus, T.J. (2003), "Organizing for resilience", in Cameron, K., Dutton I.E. and Quinn, R.E. (Eds),

- Positive Organizational Scholarship, Berrett-Koehler, San Francisco.
- Syrett, M. and Devine, M. (2012), Managing Uncertainty: Strategies for Surviving and Thriving in Turbulent Times, John Wiley & Sons.
- Van Der Vegt, G.S., Essens, P., Wahlström, M. and George, G. (2015), Managing Risk and Resilience, Academy of Management Briarcliff Manor, New York, NY.
- Vogus, T.J. and Sutcliffe, K.M. (2007), "Organizational resilience: towards a theory and research agenda", 2007 *IEEE international conference on systems, man and cybernetics*, *IEEE*, pp. 3418-3422.
- Weick, K. (2001), Making Sense of the Organization, Blackwell Publishing, Oxford.
- Wieland, A. and Wallenburg, C.M. (2013), "The influence of relational competencies on supply chain resilience: a relational view", *International Journal of Physical Distribution & Logistics Management*, Vol. 43 No. 4.
- Wiggins, B.J. and Christopherson, C.D. (2019), "The replication crisis in psychology: an overview for theoretical and philosophical psychology", *Journal of Theoretical and Philosophical Psychology*, Vol. 39 No. 4, p. 202.
- Zafari, K., Biggemann, S. and Garry, T. (2020), "Mindful management of relationships during periods of crises: a model of trust, doubt and relational adjustments", *Industrial Marketing Management*, Vol. 88, pp. 278-286.

Corresponding author

Markus Vanharanta can be contacted at: markus.vanharanta@ucd.ie