Dynamic capabilities and environmental sustainability for emerging economies’ multinational enterprises

Pervaiz Akhtar⁎, Subhan Ullah, Saman Hassanzadeh Amin, Gaurav Kabra, and Sarah Shaw

⁎Department of Management Science, Kent Business School, University of Kent, Canterbury, UK; b)IESEG School of Management, Lille, France; c)Department of Accounting, Faculty of Business, Law and Politics, University of Hull, Hull, UK; d)Department of Mechanical and Industrial Engineering, Ryerson University, Toronto, ON, Canada; e)National Institute of Industrial Engineering (NITIE), Mumbai, India; f)Department of Management Systems, Faculty of Business, Law and Politics, Logistics Institute, University of Hull, Hull, UK

ABSTRACT
The purpose of this study is to enhance our understanding of how macro (country)—level dynamic capabilities (DC), such as government environmental policies, legal and market requirements, and technological advances, and micro (firm)—level DC, such as organizational size, culture, and managerial characteristics, are related to emerging economies’ environmental sustainability policies and practices. Limited studies explore linkages between macro-and micro-level DC and environmental sustainability, which urge emerging economies’ multinationals to reconsider their environmental policies and practices in order to compete with enterprises from developed countries. We develop a theoretical framework and offer propositions about the fundamental links between macro and micro DC and emerging economies’ environmental sustainability efforts. The propositions can be empirically tested in subsequent studies using country-level and firm-level data to examine the interactions between macro-and micro-level capabilities, in relation to sustainable policies and procedures, for multinationals in emerging economies.

KEYWORDS
Dynamic capabilities; emerging economies; environmental sustainability; multinational enterprises

Dynamic capabilities (DC) originate from the resource-based view (RBV) of a firm, and these capabilities are linked with “identifiable processes and strategic routines that managers may synthesize to evaluate their resources and integrate them together, generating new applications and value-added strategies” (Eisenhardt and Martin 2000, 1107). As Beske, Land, and Seuring (2014) noted, DC are very difficult to conceptualize and they represent bundles of capabilities, not necessarily a single process. Examples of DC include localized business practices linked with macro- and micro-level characteristics, such as culture, service quality, advanced technology, economic environments, social relationships, communication facilities, infrastructure, and government policies. These factors signify that DC is a source through which emerging economies’ multinational companies (MNC) conduct their businesses (Beske, Land, and Seuring 2014; Bhaskaran and Sukumaran 2007; LaBahn and Harich 1997; Teece 2014; Williamson 2015). Empirical research shows that DC help enterprises to improve performance and value creation (Naldi, Wikström, and Von Rimsch 2014).
The fast-paced internationalization of emerging economies MNC and their desire to move into and seek strategic resources in international markets (see Cui, Meyer, and Hu 2014) provide an opportunity for companies to understand the DC of these enterprises, and suggest guidance for other MNC embarking upon this transformational journey. In the process of investing abroad, MNC from emerging economies not only seek resources, but they also share their expertise arising from “location-specific specialties at home” (Luo and Tung 2007). Furthermore, emerging economies demonstrate a unique institutional and legal environment, and theories developed in the Western world may not unanimously be applied to these economies (Chakrabarty and Wang 2012; Xu et al. 2013). Emerging economies MNC differ significantly from their counterparts in developed countries, in terms of size, structures, operations, and managerial characteristics (Kotabe, Jiang, and Murray 2011). However, like developed markets, emerging economies also share some similar characteristics (Meyer and Peng 2016), and therefore it can provide an interesting context to explore the relationship between DC rooted in macro-and micro levels and sustainability practices. Increasingly, academics and practitioners have started focusing on emerging economies MNC. For example, Jormanainen and Koveshnikov (2012) carried out a content analysis of articles on emerging economies MNC in top tier management journals published between 2000 and 2010. They found that emerging economies MNC have substantially increased during this reporting period, highlighting the importance of this research area in the academic literature.

The concepts of sustainability and sustainable operations determined by DC are integral components of corporate strategies. The need to explore the linkages between DC and environmental sustainability is driving organizations to reconsider their operations and strategies (Beske, Land, and Seuring 2014; Chen, Fung, and Yuen 2019; Gruchmann and Seuring 2018; Hall and Howe 2012; Nidumolu, Prahalad, and Rangaswami 2009; Sölvell and Zander 1995; Teece 2014). Further, Atkinson (2000) and Pagell and Wu (2009) argued that sustainable DC are the ones that drive firms to achieve multi-dimensional performance, namely environmental, financial and social sustainability. This means that regulations relating to the outcomes of emerging economies’ MNC are partly driven by the sustainable practices of organizations. Thus, sustainability is affected by overall DC (i.e., both macro-and micro-level capabilities). Such capabilities may result in financial and non-financial benefits, such as lower cost, better product outcomes, and enhanced service quality, significant waste reduction, efficient energy consumption, and, most importantly, environmental protection/adaptation (Hall and Howe 2012; Parboteeah, Helena, and Cullen 2012; Williamson 2015).

Employees (e.g., managers) and organizational practices are considered to be micro-level DC (Teece 2007). In other words, these capabilities represent the cognitive abilities of corporate managers who control MNC (Bhaskaran and Sukumaran 2007; Helfat and Peteraf 2015; Zhou and Li 2010). For example: “the capability for sensing opportunities and threats can be developed and improved through both the cognitive and creative capacities of individuals and some organizational processes such as research and development activities” (Molina-Azorín 2014, 110). At a firm-level, it includes human DC (e.g., human resource expertise), physical (e.g., firms’ geographical location and specialized equipment) and organizational, strong internal corporate governance and control, which can be utilized by implementing value-enhancing corporate strategies (Eisenhardt and Martin 2000, 1107). The ability for a firm and its employees to be innovative and entrepreneurial can help in sensing and seeking out new opportunities in the wider business ecosystem ahead of the competition, thus, encompassing the elements of both macro-and micro-level capabilities (Teece 2007). In summary, DC are “the strategic routines by which firms achieve new resource configurations as markets emerge, collide, split, evolve, and die” (Eisenhardt and Martin 2000, 1107).

Macro-level DC are represented by external institutional factors, such as government policies and regulations, stakeholders, market requirements and the external economic and business environments in which firms operate. How well a firm performs in a dynamic business environment
is dictated by a combination of both macro-and micro DC factors (Porter 1985). For instance, Adner and Kapoor (2010) described the Airbus A380 case study. They noted the challenges faced by Airbus in the pursuit of product innovation, did not reside just within the focal firm itself, but extended into the firm’s wider ecosystem, beyond the dyad. Thus, in order to obtain a holistic view of how sustainable DC affects the performance of emerging economies’ MNC, there is a need to assess both macro-and micro-level factors that straddle sustainable practices. Furthermore, macro DC may be argued by some simply as factors that influence a firm’s DC/performance. Yet, from a system’s perspective, a firm exists within a wider business ecosystem and macro DC form part of the overall system of “capabilities,” which a firm can possess and leverage to improve sustainable performance. For instance, not all emerging MNC will leverage or take advantage of government policies/incentives/taxes and local markets to drive sustainable improvement, particularly if they are SMEs trading locally compared to a large company trading globally within the same country context (Raju and Mortan 2014). Thus, a firm’s micro DC may influence how well it leverages the macro DC and vice versa.

Micro-level DC are analyzed here at both the individual and the organization levels, which is an extension of the RBV theory. The issue with looking at micro-level DC in isolation is that it does not offer an explanation as to why certain organizations sustain a competitive advantage in dynamic environments and others do not, even when they possess similar resources (Yassien and Jordan 2015). Thus, there is a need to address both micro- and macro-level DC simultaneously to understand how they interrelate to achieve environmental sustainability. Yet, very little research has investigated the impact of both micro and macro DC. For instance, many studies have explored only micro-level DC, such as individuals and organizations (Argote and Ren 2012; Eisenhardt, Furr, and Bingham 2010; Hodgkinson and Healey 2011; Teece 2007, 2012), however, there is a need to understand both, if emerging multinational enterprises want to succeed in entering new markets.

MNC enterprises have the capacity and resources to effectively respond to environmental factors (Rugman 1985). For instance, by responding to pressures from regulatory bodies (Bengtsson 1993) or they may approach it more symbolically in legitimizing corporate actions (Kuznetsov and Kuznetsova 2012). Despite the increasing awareness about environmental sustainability in the last couple of decades, the subject area is becoming a mainstream focus in the field of business and management (Dooley 2017; EMAS Board 2011; Hall and Howe 2012). For example, more than 223,149 companies from 159 countries had registered with the Environment Management System Certification (i.e., ISO 4001) by 2010 (ISO 2010). Similarly, the number of registered companies’ for Eco-Management and Auditing Scheme (EMAS) doubled to 4,659 between 1997 and 2011 (EMAS Board 2011). However, Marcus and Anderson (2006) noted that, while DC does not necessarily result in improved performance of environmental management systems, they can result in improved performance of the overall supply chain. A recent study by Shaw et al. (2016) concluded that ISO 14001 adoption was evident and growing in developing nations, such as Thailand because it was seen as a pre-requisite for trading with developed nations.

Beske, Land, and Seuring (2014) proposed eight distinctive capabilities: (1) knowledge assessment; (2) knowledge acquisition; (3) ability development; (4) search, selection, and integration of partners; (5) supply chain foundations; (6) produce and process development; (7) relationship management; and (8) reflexive controls. They proposed that if a capability, such as knowledge acquisition, helps to integrate new knowledge into the knowledge base of a firm, which results in a change or adaptation to that firm within its wider supply chain, then, it can be considered a DC. However, fundamental questions still need to be addressed. Firstly, much of the extant research requires more in-depth reviews. Secondly, it is acknowledged that companies need to focus on environmental issues under the wider umbrella of corporate social responsibility (CSR). Yet, the literature addressing the key macro-and micro DC that strengthen environmental sustainability has not articulated the missing links between macro-and micro-level capabilities and
environmental performance/sustainability (Beske, Land, and Seuring 2014; Chen, Fung, and Yuen 2019; Dooley 2017; Thompson and Cavaleri 2010; Williamson 2015). Thirdly, the literature in this area has focused predominantly on MNC from the Western world and not emerging economies. Thus, this research is timely as it explores the interaction between DC and the sustainable and CSR practices of these emerging economies MNC.

Further, progress in the area of environmental sustainability has been gradual in practice, particularly in the context of developing economies (Pagell and Wu 2009; Williamson 2015; Zhou and Li 2010). Although few studies, with the exception of Park, Russel, and Lee (2007), Beske, Land, and Seuring (2014), and Williamson (2015), have investigated the relationship between DC and sustainability dimensions, the missing links remain between macro- and micro-level DC and environmental sustainability. To cover this gap in the literature, we develop a conceptual framework and research agenda, from the existing literature, that can be used in understanding the relationship between DC and sustainability practices in the context of emerging economies MNC. We explore the interaction between macro- and micro-level DC and their perceived impact on the environmental practices of emerging economies MNC. We propose six propositions that could be tested in subsequent empirical research, and the conclusions arising from this study are presented in the final section of this article.

Theoretical framework and propositions

DC Macro-level DC external factors (e.g., government policy and regulations toward sustainability, the use of modern technology to reduce harmful emissions, market requirements, and economic environments), can directly or indirectly influence micro-level DC and environmental sustainability. Both institutional and stakeholder theories play an influential role in understanding how firms respond to their external business environments. For instance, although many environmental management standards are voluntary, many organizations are coerced or encouraged to adopt them by suppliers, customers, and, in some cases, through government tax incentives (Shaw et al. 2016). In other contexts, organizations may feel that they need to conform or simply mimic the action of competitors (DiMaggio and Powell 1983; Shaw et al. 2016).

Micro-capabilities, such as the organizations’ structure/size, environmental policy, management characteristics (board independence, culture, gender diversity, amongst others), and the types of coordination for their environmental effectiveness, also affect environmental sustainability, leading to operational, financial, social and strategic advantages for emerging economies’ MNC. The implementation of firm-level (micro) DC may yield many benefits, but also need resources, extra time, financial costs and managerial coordination efforts. RBV theory and its extension provides a useful lens through which the micro DC of emerging economies’ MNC can be understood (Barney, Ketchen, and Wright 2011; Hart and Dowell 2011). This is because a firm’s resources and capabilities, such as employees, leadership teams and business culture, play an important role in the successful implementation of environmental practices, and ultimately enhance performance through triple-bottom-line (Elkington 2004).

Teece (2007) noted that in fast-moving business environments, dominated by various factors, such as global competition and differing market conditions, understanding the success of a firm cannot be just limited to a macro or micro view of DC, but how firms harness both. Further, the literature on the relationship between DC and environmental sustainability reports having conflicting results. For instance, Teece (2007) argued that DC could be a source of sustainable advantage, while Eisenhardt and Martin (2000) argued that it could be a source of sustainable disadvantage as these [dynamic] capabilities are “itself not stable.” Peteraf, Di Stefano, and Verona (2013) suggested that these two contrasting paradigms coexist with some logical assumptions and researchers can use these assumptions from both perspectives in developing an integrated framework of DC. Figure 1 below describes the interrelationship between macro-level (i.e., country-level) and
micro-level (i.e., firm-level) DC. The interaction between micro and micro-level DC has positive implications for organizational environmental sustainability. These micro-macro level interactions also result in firm-level operational, financial, social, and strategic advantages. Further examples of the interaction between macro-micro level capabilities are presented in the following sections (also shown in Figure 1).

**Macro-level DC**

**Government policies, quality indicators, legal requirements, and technology**

Macro-level DC are shaped by government policies, regulations, and practices that support multinational enterprises’ efforts to promote their representation. For instance, the Malaysian government has introduced an economic program aimed at strengthening Malays’ MNCs representation in the country. Substantial preferences in business, education, housing, and employment have been given to Malays. Preferential contracts have also been given to Malays, and, in turn, political, economic, and social changes have been seen in Malaysian macro-level DC. This new era has created competition for Chinese MNC, which have also made efforts to enter into partnerships with foreign enterprises. This development has challenged the level of DC for Chinese enterprises, competing with local Malaysian MNC (Bhaskaran and Sukumaran 2007).

Government policies direct firms toward environmental leadership and ultimately enable coordination between parties (such as companies, governments, and other regulatory agencies),
which put cooperative efforts in place to achieve environmental sustainability. For example, the government of Canada developed a variety of new supporting policies that ultimately have resulted in a joint Commission on Resources and Environment, which helps enterprises to integrate sustainability guidelines into their environmental business strategies. The independent commission crystallized a provincial strategy that focuses on coordination within and between government departments to further develop environmental sustainability. Similar developments are made for emerging economies’ multinational enterprises and represent examples of how institutional pressure is shaping these nations’ landscapes around environment sustainability (Sarkis, Zhu, and Lai 2011). However, such developments need government-level efforts to strengthen macro-level DC for MNC enterprises and their links with environmental sustainability practices.

Switzerland, Latvia, Norway, Luxembourg, and Costa Rica are leading in terms of being environmentally and friendly, compared to other nations. This is because they have achieved better results on key environmental performance measures (EPI 2012). These results achieved in the context of developed markets suggest that middle-income countries like Latvia (GDP $12,938 per capita) and Costa Rica (GDP $19,238 per capita) can potentially achieve remarkable environmental outcomes which implies that, although generating income and wealth creation is important, good environmental policies and practices are the key determinants of success. Additionally, the policies of leading countries do not only focus on internal-governmental coordination but also working together with industries and environmentalists that play a key role in achieving environmental sustainability (Bachmann 2003; EPI 2012; Graafland and Smid 2017).

The Environmental Performance Index (EPI) report concludes that environmental challenges and issues vary between countries. The results from EPI recommend using a local approach, namely, the identification of local problems and finding solutions accordingly. The EPI report also finds that developing countries’ governments fail to implement systematic processes to verify environmental data, such as water quality, waste management, recycling, and toxic exposures (EPI 2012; Graafland and Smid 2017; Liang and Liu 2017). These findings raise concerns about the quality of regulations, governance, and the accuracy of available data in the area of environmental sustainability.

It is thus important, for government departments to introduce stringent environmental laws and regulations that can lead toward environmental certification schemes, which also require enterprises to incorporate environmentally friendly regulations and practices, as an integral part of their corporate strategies. Gabzdylova, Raffensperger, and Castka (2009) and Shaw et al. (2016) found that government regulations are key drivers for adopting sustainable practices and need to be mandatory rather than voluntary in order to improve the environmental practices. The survey conducted by Collins, Roper, and Lawrence (2010) showed that companies are not strongly compelled to adopt sustainable practices, particularly in developing countries (Liang and Liu 2017).

Sustainable and environmental practices are fundamentally embedded in the environmental laws that vary significantly across countries, regions, and even cities. Thus, companies that are governed by better environmental regulations, and comply fully with sustainable practices, may yield considerable financial and non-financial advantages over competing firms (Liang and Liu 2017; Nidumolu, Prahalad, and Rangaswami 2009). Thus, the institutional pressure from the government is key to the successful implementation of environmental sustainability within the wider macro business environment.

**Market requirements**

It is pivotal for companies to consider new market requirements and expectations from various stakeholders (e.g., customers, consumers, and media), who also impact enterprises’ environmental strategies. For example, the media is an important source of sustainability awareness for consumers who can reward/punish compliant/non-compliant firms. Markets are growing with
environmentally informed consumers and customers, and these stakeholders demand factual evidence for environmental support from and compliance by multinational enterprises. Customers are also willing to pay a premium for environmental certification programs (Grolleau, Mzoughi, and Thomas 2007).

Modern consumers give significant consideration to environmentally friendly MNC. For instance, enterprises, such as the Carbon Trust in the UK, use carbon labels and other media to create consumer awareness about environmental sustainability, which is one of the reasons that today’s green consumers demand greener products and services. Thus, pressure from customers is key drivers, as they raise concerns about product environmental quality and regulations (Gabzdylova, Raffensperger, and Castka 2009).

Considering customers’ and consumers’ preferences can help to build corporate image and reputation. In turn, this makes trading between the domestic market and foreign markets much easier (Shaw et al. 2016). Ultimately, such considerations provide a greater ability to work with superior partners in the industry (Gabzdylova, Raffensperger, and Castka 2009). Particularly, the policies and focus of leading overseas markets have significantly shifted toward environmental sustainability. For example, some retailers have recently developed “Certification Schemes” such as EurepGAP and GlobalGAP that assure conformity with environmental and labor requirements and product safety for consumers. Further, many large MNC voluntarily reports their environmental performance through schemes, such as the Global Reporting Initiative, as a way to showcase, their environmental credibility. For instance, Tesco PLC, having 30.7 percent market share of the UK’s retail sector (and being one of the fourth largest world retailers), has recently developed a certificate scheme, called Nature Choice. This certification not only establishes firm-level environmental standards but also specifies size, taste, shelf life, and a variety of other product-related attributes. In fact, it does not matter whether Tesco’s suppliers are from developed countries or emerging economies, they have to comply with the terms and conditions required by the certification (Saunders, Guenther, and Driver 2010).

Market requirements also demand environmental-friendly product policies, such as sustainable packaging, labeling, and product development using recycled content. Such policies also improve the reputation and legitimacy of multinational organizations. These factors, linked with manufacturing, production and reverse supply chains, attract, and retain business partners, which, in turn, help to increase a firm’s market share (Sharma et al. 2010). MacRae et al. (2012) argued that sustainable packaging and labeling reduce costs and promote recycling and energy saving. Such practices not only help in protecting the environment, but may also result in enhanced corporate disclosure relating to environmental issues, i.e., use of chemicals, nutrition, and health and safety, and issues concerning animal welfare. However, it is unlikely that manufacturers would voluntarily label their products with information and data about policies that are environmentally harmful. Thus, effective macro-level (country-level) environmental legislations can play a crucial role in coercing firms to comply with health and safety as well as with the environmental standards (MacRae et al. 2012; Tobler, Visschers, and Siegrist 2011).

Product labeling should also include transportation modes and distance traveled, as they heavily affect environmental sustainability. Such information helps consumers to purchase local products and reduce harmful environmental impacts (Tobler, Visschers, and Siegrist 2011). For instance, locally produced vegetables in the Netherlands require 6 MJ per kg. However, the same quantity of vegetables transported from Africa to the Netherlands requires 88 MJ (Tobler, Visschers, and Siegrist 2011). A recent survey shows that environmentally focused consumers consider transportation distances and prefer to buy products local than global (Tobler, Visschers, and Siegrist 2011).

When entering a new market, a firm is able to develop “difficult to replicate” DC, which can be used to continuously harness, create, extend, upgrade, and protect their asset base (Teece 2007, 1319). Teece (2007) disaggregates this into three main components: (1) to sense and shape
opportunities and threats; (2) to seize opportunities; and (3) to maintain competitiveness through enhancing, combining, protecting, and when necessary, reconfiguring the business enterprise’s intangible and tangible assets. From a theoretical perspective, such ability requires the coordination of not only macro but also micro DC to realize these opportunities/threats and achieve environmental sustainability.

In summary, pressure by stakeholders, such as customers, suppliers, and final consumers, are the key parameters that drive to build DC that are linked with sustainable practices. The literature in this area shows that consumers often have insufficient knowledge to assess environmentally friendly products. Additionally, governments’ pressure often fails to enforce stringent regulations relating to packaging and labeling. Governments can develop and enforce environmental policies and can create environmental awareness, which can force MNC to build their DC regarding environmentally friendly practices (MacRae et al. 2012; Mikalef and Adamantia 2017; Tobler, Visschers, and Siegrist 2011). However, it is the coordination efforts, both at the macro- and micro-level, which together have a synergistic effect in developing difficult-to-replicate DC.

For instance, at a macro level companies are under immense pressure from shareholders in the stock market, as well in the consumer/product market, to demonstrate their sustainable credentials. Large global companies, like Clariant, a world leader in specialty chemicals, have to demonstrate their green compliance to shareholders by being part of programs such as the Dow Jones Sustainability Index or the FTSE Good Index (Clariant 2007). However, at a firm level, companies may also set-up voluntary disclosure committees, CSR/sustainability committees, or even appoint sustainability directors, to signal their focus on and commitment to business ethics and sustainability. Clariant, who has a dedicated Vice President for Sustainability, has integrated sustainability programs across and within its operations, from the corporate strategy down to processes and product development to become number one on the Dow Jones Sustainability Index. Together, the interaction between such external enforcement and internal commitment may positively affect a firm’s contribution to CSR activities.

**Economic capability**

The key factors that strengthen the economic capability of a country could include high income and better exports, contributing to gross domestic product (GDP) (Van Phan and O’Brien 2019). Consequently, such economic activities result in higher demand for goods and services, resulting in an increased need for imports and exports, which increases the carbon footprint of supply chains (local versus global).

In building economic capabilities, governments may develop different legislations for firms according to their size, structures, and operations. For example, the government often places direct and indirect costs, such as social contributions of employers, taxation and compliance costs, to meet legal requirements. In addition, the requirements are often very stringent for larger firms compared to requirements for smaller firms with limited resources. Enterprises may face challenges to meet such costs, as a one-size-fits-all approach may not be suitable in promoting environmental and sustainability-related practices. Therefore, to avoid the risk of noncompliance and subsequent execution, governments may develop supporting policies and tax incentives that assist enterprises to overcome firm-specific disadvantages in meeting environmental compliance.

The complexity of government procedures and regulations, shortage of labor, unemployment, and competitive hostility also affect enterprises that, in turn, affect DC. The development of economic institutions, such as supporting infrastructures, banks and education systems, is important to the building of macro-level economic capabilities (Smallbone and Welter 2001).

To measure the performance of macro capabilities, Elekdag (2008) recommends three indicators, namely, interest rates, oil prices, and GDP. Among these indicators, GDP is widely used in the academic literature (Elekdag 2008). However, GDP only considers the total market production
and it cannot be used to measure the overall welfare of a country, so it can provide misleading signals to policymakers. A recommendation is to consider the real household income, household consumption, and net national income that are closely associated with household living standards that are linked with macro-capabilities. It is also suggested that measures of income, consumption, and wealth should be accompanied by those indicators that imitate their distribution. Additionally, healthy competition in targeted markets also provides opportunities that could significantly influence DC and relative policies (Pisano 2017; Sölvell and Zander 1995).

Based on the above discussion, we present the following propositions that can be tested in subsequent research:

Proposition 1: There is a positive relationship between key macro-level DC and environmental sustainability.

Proposition 2: There is a positive relationship between key macro-level DC and micro-level DC.

**Micro-level DC**

**Organizational size, structure, governance, and relevant policies**

Large MNC that have grasped commercial benefits from environmental sustainability include Unilever and Proctor and Gamble. These companies consider the natural environment as a central concern to customers, shareholders, and staff (Redclift 2005). Such big companies can easily afford environmental certification schemes, which could be costly for emerging economies’ MNC. For example, an average environmental management program could cost around €150,000. Thus, the probability of registering and implementing an environmental certification scheme is associated with larger firms (Grolleau, Mzoughi, and Thomas 2007).

In fact, there is no such enterprise that negatively impacts social and natural systems (i.e., environmental sustainability). However, some companies and industry sectors may do better than others in achieving environmental sustainability (Pagell and Wu 2009). For example, the damage to the environment [air emissions] in the electricity sector decreased by nearly 50 percent between 1987 and 1994. Similarly, in the agriculture sector, a significant reduction has been observed in PM$_{10}$; however, CO$_2$ and SO$_2$ have gradually increased in the agriculture industry (Atkinson 2000). Simnett, Vanstraalen, and Chua (2009) believed that companies in utilities, finance, and mining are more likely to focus on the assurance of their sustainability reports. Pagell and Wu (2009) also scrutinized ten sustainable enterprises, namely, Snack Food, Food and Beverage, Pizza Restaurants, Cleaning Products, Forest and Wood Products, Electric Scraps, Paper Products, Lighting Products, Building Renovation, and IT Equipment. The findings show that majority of these organizations mainly focused on: (1) employees’ training about environmental sustainability; (2) linking their corporate strategy and performance measurement systems to sustainable practices; (3) sustainability issues as part of their daily conversations; (4) developing guidelines for acquiring certifications; (5) transportation and production efficiency; (6) the use of advanced technology; (7) the integration of sustainability into the entire organization; and (8) building micro-level DC by emphasizing internal operations (Pagell and Wu 2009; Redclift 2005).

Gabzdylova, Raffensperger, and Castka (2009) believe that firm size seems to be an important factor in the adoption of environmental practices. In support, Gallo and Christensen (2011) found that large enterprises with sufficient manpower and funds were better off in responding to sustainability-related regulations. This can be explained by the RBV, suggesting that, compared to small organizations, large organizations have access to greater resources such as finance, people, systems, and processes that increase their ability and capability to implement environmental sustainability practices (Nawrocka, Brorson, and Lindhqvist 2009). Research also showed that a firm’s ownership structure (public or private) is strongly related to environmentally sustainable
practices. It has also been observed that innovative enterprises are more likely to be successful in employing environmental sustainability initiatives (Arora and Hartley 2017; Gallo and Christensen 2011).

Firm-level internal control systems could significantly influence a firm’s CSR practices. Almost every country has now implemented a formal corporate governance code. A corporate governance code includes guidelines and best practices, and the board of directors is required to comply with such national-level regulations and guidelines in order to enhance the accountability and transparency of its organizations (Jamali, Safieddine, and Rabbath 2008). If governance regulations are implemented in an effective way, they can contribute to stakeholder activities (e.g., CSR initiatives) to make firms more visible and to preserve corporate legitimacy. We, therefore, expect a positive relationship between a firm’s internal governance structure and environmental sustainability.

Management characteristics and coordination efforts

Managers’ relevant education, past experience, and environmental support, traditional measures, modern preventive systems can improve the performance of the natural environment that reflects an enterprise’s environmental policy (Grolleau, Mzoughi, and Thomas 2007). In particular, top management perceptions and support, such as employees’ empowerment, rewards, environmental training and frequent internal, and external coordination efforts, could also affect sustainable practices. Top management especially reflects micro-level policies and corporate culture. It is important therefore to match such factors to encourage the implementation of environmental practices (Akhtar et al. 2018; Bachmann 2003). Moreover, a corporate strategy that encourages employees to work from home may also help in reducing energy usage, travel costs, and time (Nidumolu, Prahalad, and Rangaswami 2009). In support, the study also found that one-tenth of surveyed companies had 21–50% of employees who worked from home using telecommunication and other online tools, and, as a result, these enterprises have saved $550–700 million dollars, and their production capacity improved by 10–20%. Consequently, employees’ job satisfaction levels increased significantly (Nidumolu, Prahalad, and Rangaswami 2009). Gabzdylowa, Raffensperger, and Castka (2009) and Collins, Roper, and Lawrence (2010) also believe that corporate values, employees’ commitment, satisfaction and the belief of top management to embrace CSR initiatives are the fundamental firm-specific factors that drive environmental sustainability.

Additionally, the efficiency relating to environmental sustainability is derived from working together with business partners to develop eco-friendly raw materials, production, and waste reduction. Coordination efforts are important and help in improving corporate image and legitimacy, reducing associated litigation costs arising from noncompliance with environmental laws. In this way, key business coordinators can play a vital role in promoting awareness and developing collaborations with other organizations to protect the environment. For example, Wal-Mart develops guidelines for its suppliers (including those in emerging markets), and together with their suppliers, they set out targets to increase energy efficiency by 25 percent and reduce packaging costs by 5% in few years (Nidumolu, Prahalad, and Rangaswami 2009). Concisely, the coordinated efforts between participant companies, government and regulation agencies can lead to environmental sustainability. These arguments lead to the following propositions:

Proposition 3: There is a positive relationship between key micro-level DC and environmental sustainability.

Proposition 4: There is a positive relationship between the coordination efforts (i.e., linking macro-and micro-level DC and coordination efforts within departments and with supply chain partners) and environmental sustainability.
Environmental sustainability, advantages, and disadvantages

In 1987, the concept of sustainability was defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Redclift 1993, 8). The three dimensions of sustainability (i.e., environmental, economic, and social) can be contradictory, as well as complimentary with each other (Mollenkopf et al. 2010). For example, if a number of developed economies agree on promoting environmental sustainability, it may not necessarily be equally applicable to those emerging economies that seek more natural resources’ exploration and wealth (e.g., China, India). Thus, definitions of sustainability are still vague, broad in scope and can mean different things to different countries (Atkinson 2000; Pagell and Wu 2009). Furthermore, cultural and political changes such as globalization, de-globalization (e.g., the UK leaving the EU and the US foreign policies) and ongoing wars in countries such as Afghanistan and Iraq, have increased the number of challenges for the global environmental development and sustainability (Casey 2018; Redclift 2005).

As discussed in the preceding section (Hall and Howe 2012; Parboteeah, Helena, and Cullen 2012), emerging markets MNC are likely to enjoy the financial and non-financial benefits associated with environmental sustainability. The potential advantages include cost savings related to waste reduction, material, health and safety, and labor. Saving these costs generates additional revenue that enables emerging economies MNC to expand their existing business models into overseas markets. There is obviously no substitute to sustainability, although some CEOs have raised concerns that embedding sustainability in each aspect of the business model would be too costly for their organizations. They also assert that sustainable production demands new technology and processes that increase immediate costs, and consumers may not be willing to pay extra for eco-products, although some researchers may argue against this statement (e.g., Grolleau, Mzoughi, and Thomas 2007). That is why top management often divorce environmental sustainability from their core business policy and strategies (Nidumolu, Prahalad, and Rangaswami 2009).

The key advantages of environmental sustainability include improvement in operational performance (i.e., increasing profit by cost savings on energy usage, waste management, water usage, chemicals and transportation cost reduction, social outcomes (i.e., stakeholder trust and satisfaction), strategic benefits (i.e., better market access, greater understanding of the modern business preferences, brand recognition, joint decision-making, effective regulations, and benchmarking guidelines) (Carter and Rogers 2008; Collins, Roper, and Lawrence 2010; Hall and Howe 2012; Parboteeah, Helena, and Cullen 2012). The disadvantages are; membership fee, extra time to fill in the forms and to follow burdensome bureaucratic procedures, having extra costs related to the adoption of new technology, and the cost relating to the environmental audit and assurance (Collins, Roper, and Lawrence 2010; Grolleau, Mzoughi, and Thomas 2007; Nidumolu, Prahalad, and Rangaswami 2009). We offer the following proposition:

Proposition 5: Environmental sustainability results in more advantages than disadvantages, when these advantages are supported by macro- and micro-level DC.

Conclusion and future research

Empirical studies have extensively debated the determinants of CSR and its impact on corporate performance and market valuation. Although the concept of environmental sustainability was coined a few decades ago, not enough research has been conducted to investigate the key linkages between DC and environmental sustainability, particularly in the context of emerging economies MNC. Within the framework of DC, the major macro-capabilities that directly and indirectly affect environmental sustainability include government policies, legal and market requirements, technological advances and economic capacities. These factors are also associated with MNC micro-level capabilities, such as management characteristics, environmental strategies, operations,
and coordination efforts. We argue that the coordinated efforts by those players involved in promoting environmental sustainability (i.e., government, companies, supply chain partners, and regulatory agencies) could significantly affect firm-level initiatives (voluntary and mandatory) relating to environmental sustainability. We suggest that future studies should explore and test the interaction between country-level and firm-level DC.

The propositions presented in this research can be empirically tested using secondary data on DC and environmental sustainability. It thus provides a conceptual framework for further empirical research and for the testing of the propositions in a case study or industry setting through surveys or using panel data already available on different databases. We also suggest utilizing the interaction between firm-level ESG (environmental, social and governance) data and the country-level indicators of institutional quality (rule of law and judicial efficiency) to test the propositions presented in this article. We also suggest that there is no harm in using a “cherry-picking” or benchmarking approach, whereby emerging economies MNC can benefit from best practices used by their competing firms in developed countries. This might help them to take a proactive approach in order to tackle environmental issues (Akhhtar et al. 2012; EPI 2012). We also argue that informal norms distributed through vibrant media (social, print, and electronic media) could also be used as a tool to reward/punish compliant and non-compliant firms in the area of environmental sustainability. We suggest stringent environmental regulations for companies operating in emerging economies, consequently, substantial fines and penalties can be implemented for those companies violating environmental regulations. We also suggest that compliance with environmental programs should be required as a “listing requirement” on all major stock exchanges around the world so that firms can be de-listed from stock markets in the event of noncompliance with environmental regulations.

Notes

1. With the introduction of corporate governance regulations around the world, many companies have now established committees that look after the corporate social responsibility and sustainability related affairs of an organization – namely, the corporate social responsibility committee, sustainability committee – making efforts to link different dynamic capabilities so better environmental results can be obtained.
2. Sustainability assurance is very similar to an audit where the social and environmental policies/activities of an organization are examined by an independent external consulting/auditing firm. The assurance certificates issued by the consulting/auditing firm give some assurance to investors and other stakeholders that the social and environmental activities of an organization are independently verified and hence such disclosure can be trusted. Currently, the Big Four auditing firms frequently issue assurance certificates for large and listed companies.

Notes on contributors

Pervaiz Akhtar is Associate Dean of Graduate Studies and Professor of Management Systems, specialised in big data, business analytics, mixed methods and modelling to optimize and de-risk operational performance, supply chains and business value. He is also an External/Visiting Professor of Big Data and Business Analytics, IESEG School of Management (France). Due to his all-round excellence in leadership, research and teaching, he made to the list of 153 academics (out of 194,245 professors, 0.00080%) across all disciplines in the UK who earned their Professorship under the age of 35 as per HESA records (www.hesa.ac.uk) and became the youngest professor at multiple universities/from his county of origin (over 200 million population). He has also set consecutive promotion records. Capitalizing on over 15 years of academic and industrial experiences in public, private, and non-profit-making organizations (UNICEF, JCCP, Oxfam, MSF, Islamic Relief, Red Cross, dairy industry, and FMCG companies such as Unilever and Reckitt Benckiser), he has published his research in top-ranked journals such as International Journal of Operations & Production Management, British Journal of Management, International Journal of Production Economics, Business Ethics, among others. He can be reached at Pervaiz_khan972@hotmail.com or p.akhtar@kent.ac.uk.
Subhan Ullah is an Associate Professor in Accounting at the University of Nottingham, UK. Over the past 14 years, he has taught courses in Accounting as well as finance at the University of Hull, Nottingham Trent University, the University of Buckingham, COMSATS University (Pakistan) and the University of Peshawar (Pakistan). His main research interests are in areas of corporate governance, corporate social responsibility, sustainability, accounting information quality and corporate finance. His research appears in leading international journals, such as the British Journal of Management, Industrial Marketing Management, Research in International Business and Finance, Corporate Governance, amongst others.

Saman Hassanzadeh Amin is an Assistant Professor at the Department of Mechanical and Industrial Engineering, Ryerson University. He received his PhD from the University of Windsor in 2012. Dr. Amin’s research interests include Supply Chain Management, Operations Management, Operations Research, Optimization, Information Technology, and Decision Support Systems. He can be reached at saman.amin@ryerson.ca.

Gaurav Kabra is working as an Assistant Professor in the area of Operations and Supply Chain Management at National Institute of Industrial Engineering (NITIE) Mumbai, Maharashtra, India. He completed his doctoral research in the area of humanitarian supply chain management from Indian Institute of Technology Roorkee, Roorkee, Uttarakhand, India. He obtained his integrated B.Tech (Information Technology) and MBA from Indian Institute of Information Technology and Management, Gwalior, Madhya Pradesh, India. His areas of interest include supply chain management, humanitarian logistics, social media analytics, and application of IT in business. He is the recipient of Emerald Literati Network Awards for Excellence – 2016. Gaurav Kabra can be contacted at kabraiitm@gmail.com.

Sarah Shaw is a Senior Lecturer in Logistics and Supply Chain Management at the Hull University Business School, UK. Her PhD thesis investigated environmental supply chain performance measures. Her research interests include green/sustainable logistics, closed-loop supply chains and performance measurement & reporting. She recently won the ‘Leader of the Year’ in the Women in Logistics Awards, 2017 UK, for her work within the Chartered Institute of Logistics and Transport UK, aimed at encouraging young people to work in the logistics sector. She leads various multi-disciplinary research projects and has published in a variety of scientific journals. One of her publications was selected by Emerald Group Publishing to appear in A Focus on Sustainable Supply Chains and Green Logistics, part of ‘Emerald Gems’ which brings together some of the most highly cited, read and innovative research in its field.

References

Adner, R., and R. Kapoor. 2010. “Value Creation in Innovation Ecosystems: How the Structure of Technological Interdependence Affects Firm Performance in New Technology Generations.” Strategic Management Journal 31 (3):306–333. doi:10.1002/smj.821.

Akhtar, P., Z. Khan, J. G. Frynas, Y. K. Tse, and R. Rao-Nicholson. 2018. “Essential Micro-Foundations for Contemporary Business Operations: Top Management Tangible Competencies, Relationship-Based Business Networks and Environmental Sustainability.” British Journal of Management 29 (1):43–62. doi:10.1111/1467-8551.12233.

Akhtar, P., N. Marr, E. Garnevksa, and S. Ahmed. 2012. “Chain Coordinators and Their Role in Selected Agri-Food Supply Chains: Lessons from Pakistan, New Zealand and United Kingdom.” Food Chain 2 (1):104–116. doi:10.3362/2046-1887.2012.008.

Argote, L., and Y. Ren. 2012. “Transactive Memory Systems: A Micro Foundation of DC.” Journal of Management Studies 49 (8):1375–1382. doi:10.1111/j.1467-6486.2012.01077.x.

Arora, A. S., and N. Hartley. 2017. “Sustainability, Institutions, and Internationalization in Emerging Markets: Role of Sustainable Innovation for Sustainable World Development.” International Journal of Emerging Markets 12 (1):920–926.

Atkinson, G. 2000. “Measuring Corporate Sustainability.” Journal of Environmental Planning and Management 43 (2):235–252. doi:10.1080/09640560010694.

Bachmann, R. 2003. “The Coordination of Relations across Organizational Boundaries.” International Studies of Management and Organization 33 (2):7–21. doi:10.1080/00208825.2003.11043681.

Barney, J. B., D. J. Ketchen, and M. Wright. 2011. “The Future of Resource-Based Theory: Revitalization or Decline?” Journal of Management 37 (5):1299–1315. doi:10.1177/0149206310391805.

Bhaskaran, S., and N. Sukumaran. 2007. “National Culture, Dynamic Capabilities and Management Practices: Consequential Relationships?” Cross Cultural Management: An International Journal 14 (1):54–67. doi:10.1108/13527600710718831.

Bengtsson, L. 1993. “Governmental Markets, Regulations, and Hierarchies: Building Trust in the Face.” International Studies of Management and Organization 23 (1):47–68. doi:10.1080/00208825.1993.11656600.
Beske, P., A. Land, and S. Seuring. 2014. “Sustainable Supply Chain Management Practices and Dynamic Capabilities in the Food Industry: A Critical Analysis of the Literature.” International Journal of Production Economics 152:131–143. doi:10.1016/j.ijpe.2013.12.026.

Carter, C., and D. Rogers. 2008. “A Framework of Sustainable Supply Chain Management: Moving toward New Theory.” International Journal of Physical Distribution and Logistics Management 38 (5):360–387. doi:10.1108/09600030810882816.

Casey, C. A. 2018. “De-Globalization and the Disintegration of the European News System 1918–34.” Journal of Contemporary History 53 (2):267–291. doi:10.1177/0003972816678917.

Chakrabarty, S., and L. Wang. 2012. “The Long-Term Sustenance of Sustainability Practices in MNCs: A Dynamic Capabilities Perspective of the Role of R&D and Internationalization.” Journal of Business Ethics 110 (2):205–217. doi:10.1007/s10551-012-1422-3.

Chen, I. S. N., P. K.O. Fung, and S. S. M. Yuen. 2019. “Antecedents and Performance Implications.” Asia Pacific Journal of Marketing and Logistics 31 (4):1058–1075. doi:10.1108/APJML-12-2017-0308.

Clariant. 2007. “Clariant Achieves Best-in-Class Rankings in 2017 Dow Jones Sustainability Index.” Accessed October 22, 2019. https://www.clariant.com/en/Corporate/News/2017/09/Clariant-achieves-best-in-class-rankings-in-2017-Dow-Jones-Sustainability-Index.

Collins, E., J. Roper, and S. Lawrence. 2010. “Sustainability Practices: Trends in New Zealand Businesses.” Business Strategy and the Environment 19 (8):479–494. doi:10.1002/bse.653.

Cui, L., K. E. Meyer, and H. W. Hu. 2014. “What Drives Firms’ Intent to Seek Strategic Assets by Foreign Direct Investment? A Study of Emerging Economy Firms.” Journal of World Business 49 (4):488–501. doi:10.1016/j.jwb.2013.12.003.

DiMaggio, P. J., and W. W. Powell. 1983. “The Iron Cage Revisited: Collective Rationality and Institutional Isomorphism in Organizational Fields.” American Sociological Review 48 (2):147–160. doi:10.2307/2095101.

Dooley, K. 2017. “Value Chain Systemicity: “Promoting Organizational Creativity and Environmental Sustainability in Low Velocity Industries.” Journal of Cleaner Production 140:1903–1913. doi:10.1016/j.jclepro.2016.09.075.

Eisenhardt, K.M., and J. A. Martin. 2000. “Dynamic Capabilities: What Are They?” Strategic Management Journal 21 (10–11):1105–1121. doi:10.1002/(SICI)1097-0266(200010/11)21:10<1105::AID-SMJ133>3.0.CO;2-E.

Eisenhardt, K., N. Furr, and C. Bingham. 2010. “Macro-Foundations of Performance: Balancing Efficiency and Flexibility in Dynamic Environments.” Organization Science 21 (6):1263–1273. doi:10.1287/orsc.1100.0564.

Elekdag, S. 2008. “How Does the Global Economic Environment Influence the Demand for IMF Resources?” IMF Staff Papers 55 (4):624–653.

Ellkington, J. 2004. The Triple Bottom Line: Does It All Add Up. London: Routledge.

EMAS Board. 2011. “Systematic Environmental Management Creating Added Value with EMAS.” Accessed October 22, 2019. https://pfm.management/wpcontent/uploads/2014/06/Creating_Added_Value_with_EMAS_EN.pdf.

EPI. 2012. “Environmental Performance Index and Pilot Trend Environmental Performance Index.” Accessed October 22, 2019. https://sedac.ciesin.columbia.edu/data/set/epi-environmental-performance-index-pilot-trend-2012.

Gabzdylova, B., J. Raffensperger, and P. Castka. 2009. “Sustainability in the New Zealand Wine Industry: Drivers, Stakeholders and Practices.” Journal of Cleaner Production 17 (11):992–998. doi:10.1016/j.jclepro.2009.02.015.

Gallo, P., and L. Christensen. 2011. “Firm Size Matters: An Empirical Investigation of Organizational Size and Ownership on Sustainability-Related Behaviours.” Business and Society 50 (2):315–349. doi:10.1177/0007650311398784.

Graafland, J., and H. Smid. 2017. “Reconsidering the Relevance of Social License Pressure and Government Regulation for Environmental Performance of European SMEs.” Journal of Cleaner Production 141:967–977. doi:10.1016/j.jclepro.2016.09.171.

Grolleau, G., N. Mzoughi, and A. Thomas. 2007. “How Does the Global Economic Environment Influence the Demand for IMF Resources?” IMF Staff Papers 55 (4):624–653.

Gruchmann, T., and S. Seuring. 2018. “Explaining Logistics Social Responsibility from a Dynamic Capabilities Perspective.” The International Journal of Logistics Management 29 (4):1255–1278. doi:10.1108/IJLM-08-2017-0200.

Hart, S. L., and G. Dowell. 2011. “A Natural Resource-Based View of a Firm: Fifteen Years After.” Journal of Management 37 (5):1464–1479. doi:10.1177/0149206310390219.

Helfat, C.E., and M. A. Peteraf. 2015. “Managerial Cognitive Capabilities and the Micro Foundations of Dynamic Capabilities.” Strategic Management Journal 36 (6):831–850. doi:10.1002/smj.2247.

Hodgkinson, G., and M. Healey. 2011. “Psychological Foundations of Dynamic Capabilities: Reflexion and Reflection in Strategic Management.” Strategic Management Journal 32 (13):1500–1516. doi:10.1002/smj.964.
Redclift, M. 1993. “Sustainable Development: Needs, Values, Rights.” *Environmental Values* 2 (1):3–20. doi:10.3197/096327193776679981.

Redclift, M. 2005. “Sustainable Development (1987–2005): an Oxymoron Comes of Age.” *Sustainable Development* 13 (4):212–227. doi:10.1002/sd.281.

Rugman, A. M. 1985. “Multinationals and Global Competitive Strategy.” *International Studies of Management & Organization* 15 (2):8–18. doi:10.1002/00208825.1985.11656406.

Sarkis, J., Q. Zhu, and K.-H. Lai. 2011. “An Organizational Theoretic Review of Green Supply Chain Management Literature.” *International Journal of Production Economics* 130 (1):1–20. doi:10.1016/j.ijpe.2010.11.010.

Saunders, C. M., M. Guenther, and T. Driver. 2010. “Sustainability Trends in Key Overseas Markets: Market Drivers and Implications to Increase Value for New Zealand Exports.” Research Report No. 319, Lincoln University, New Zealand.

Sharma, A., G. Iyer, A. Mehrotra, and R. Krishnan. 2010. “Sustainability and Business-to-Business Marketing: A Framework and Implications.” *Industrial Marketing Management* 39 (2):330–341. doi:10.1016/j.indmarman.2008.11.005.

Shaw, S., D. B. Grant, N. Shenin, and S. Chaisurayakarn. 2016. “Using Environmental Reporting Tools in the Supply Chain: Perspectives from UK, Finland and Thailand.” Proceedings of the 21st Annual Logistics Research Network (LRN) Conference, University of Hull, UK, September 2016.

Simnett, R., A. Vanstraelen, and W. Chua. 2009. “Assurance on Sustainability Reports: An International Comparison.” *The Accounting Review* 84 (3):937–967. doi:10.2308/accr.2009.84.3.937.

Smallbone, D., and F. Welter. 2001. “The Role of Government in SME Development in Transition Economies.” *International Small Business Journal: Researching Entrepreneurship* 19 (4):63–77. doi:10.1177/0266242601194004.

Sölvell, Ö., and I. Zander. 1995. “Organization of the Dynamic Multinational Enterprise: The Home-Based and the Heterarchical MNE.” *International Studies of Management and Organization* 25 (1–2):17–38. doi:10.1080/00208825.1995.11656650.

Teece, D. J. 2007. “Explicating Dynamic Capabilities: The Nature and Micro-Foundations of (Sustainable) Enterprise Performance.” *Strategic Management Journal* 28 (13):1319–1350. doi:10.1002/smj.640.

Teece, D. J. 2012. “Dynamics Capabilities: Routines versus Entrepreneurial Action.” *Journal of Management Studies* 49 (8):1395–1401. doi:10.1111/j.1467-6486.2012.01080.x.

Teece, D. J. 2014. “A Dynamic Capabilities-Based Entrepreneurial Theory of the Multinational Enterprise.” *Journal of International Business Studies* 45 (1):8–37. doi:10.1057/jibs.2013.54.

Thompson, J. P., and S. Cavaleri. 2010. “Dynamic Knowledge, Organizational Growth, and Sustainability: The Case of Prestwick Memory Devices.” *International Studies of Management and Organization* 40 (3):50–60. doi:10.2753/IM0002-8825400303.

Tobler, C., V. H. M. Visschers, and M. Siegrist. 2011. “Organic Tomatoes versus Canned Beans: How Do Consumers Assess the Environmental Friendliness of Vegetables?” *Environment and Behavior* 43 (5):591–611. doi:10.1177/0013916510372865.

Van Phan, P., and M. O’Brien. 2019. “Multidimensional Wellbeing Inequality in a Developing Country: A Case Study of Vietnam.” *Social Indicators Research* 145 (1):157–183. doi:10.1007/s11205-019-02104-0.

Williamson, P. J. 2015. “The Competitive Advantages of Emerging Market Multinationals: A Re-Assessment.” *Critical Perspectives on International Business* 11 (3/4):216–235. doi:10.1108/CPoIB-02-2014-0008.

Xu, D., and K. E. Meyer. 2013. “Linking Theory and Context: 'Strategy Research in Emerging Economies' after Wright et al. (2005).” *Journal of Management Studies* 50 (7):1322–1346. doi:10.1111/j.1467-6486.2012.01051.x.

Yassien, E., and A. Jordan. 2015. “Big Picture of Dynamic Capabilities.” *Journal of Management Research* 7 (5):63–78. doi:10.5296/jmr.v7i5.8007.

Zhou, K. Z., and C. B. Li. 2010. “How Strategic Orientations Influence the Building of Dynamic Capability in Emerging Economies.” *Journal of Business Research* 63 (3):224–231. doi:10.1016/j.jbusres.2009.03.003.