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Conceptualizing Social Responsibility in Operations via Stakeholder Resource-Based View

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Abstract: We seek to conceptualize social responsibility for operations management (OM) research to develop a social responsibility lens through which to view operations. To do so, we first consider the corporate social responsibility, sustainability, as well as the bottom-of-the-pyramid and shared value approaches and identify three challenges to developing such a lens: selecting the level of analysis, tackling the huge multitude of objectives, and developing theoretical underpinnings. We then propose a 'stakeholder resource-based view' (SRBV) building on resource-based view, stakeholder theory, and utility theory to address these challenges. Under SRBV, all stakeholders are treated on a par with each other. These different stakeholders are all presumed to seek maximizing their respective (expected) utility, with different drivers shaping their preferences and do so they use their respective resources, routines and dynamic capabilities. SRBV provides (a) a descriptive framework for qualitative research, (b) an instrumental framework for empirical research, and (c) a normative framework for analytical research. It enables tackling many opportunities for OM research to do with social responsibility and we outline some of these in each of the three types of research methodologies.

Keywords: Social responsibility; sustainability; resource-based view; stakeholder theory; utility theory.

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1. Introduction

Keynes wrote that "the political problem of mankind is to combine three things: Economic Efficiency, Social Justice and Individual Liberty."¹ Society expects that while contributing to and benefitting from economic efficiency, business will not take away from social justice or reduce individual liberty. Based on an assumption of the obligation of business to society (Banerjee 2007:6), business needs to help ameliorate problems in society rather than add to them (cf. Carroll and Buckholz, 2012:2-3). This obligation needs to be discharged by managers of large companies (Bowen 1953). The 21st century has seen an increase in calls for specifics on how business should operationalize this obligation to society.² In 2008, the United Nations Development Program's (UNDP) hosted the Business Call to Action³ that calls for business-led solutions in advancement of the eight United Nations Millennium Development Goals set in 1990 for 2015.⁴ The United Nations also started an initiative called UN Global Compact in 2000 to engage with "enlightened global business" to "embrace universal principles."⁵ Well-publicised examples of business initiatives include Nestlé's Creating Shared Value Initiatives, Starbuck's C.A.F.E. Practices, Hindustan Unilever's Shakti project in India, and Walmart's Global Direct Farm programs.⁶ Less well publicised but more prevalent is the work of social entrepreneurs and non-government organizations (NGO) in creating new business models to directly help the economically and socially disadvantaged (London et al. 2010, Sodhi and Tang, 2011).

Business interacts with society through operations so operations management (OM) researchers need to be able to study how companies meet this obligation to society. There is already a plethora of related concepts in the OM literature: *environmentally responsible operations, sustainable supply chains, sustainable operations, sustainable purchasing, bottom/base-of-pyramid operations,* and *shared value* for instance. However, the boundaries of these concepts are too unclear for OM research for consistent descriptive, instrumental or normative study. Moreover, while CSR research focuses on large companies, OM researchers have focused instead mostly on the operations of start-ups, non-profit organizations, and non-government organizations as regards social responsibility. Finally, contradictory claims can be made for any operations being socially responsible or irresponsible.

This paper therefore seeks to conceptualize social responsibility in operations to provide OM researchers with a way to describe, measure, and offer norms for such operations. We start with the approaches in the CSR literature, the sustainability literature, and the bottom-of-the-

pyramid/shared value literature. We find there are three challenges facing the OM researcher: (a) identifying the appropriate level of analysis, (b) tackling the multitude of objectives, and (c) developing theoretical underpinnings, given those in the OM literature and those in the social responsibility literature. We present 'stakeholder resource-based view' (SRBV) to overcome these challenges, building on resource-based view (RBV) used by many empirical OM researchers, stakeholder theory used in social responsibility, and utility theory used in analytical OM research. This allows us to conceptualize opportunities for research, some of which outline.

This article contributes to the OM literature by providing researchers with SRBV as a lens for studying social responsibility in operations. SRBV provides a descriptive framework for qualitative research, an instrumental framework for empirical research, and a normative framework for analytical OM research. Moreover, we contribute to the business-and-society literature by extending the definition of a company's social responsibility over any of its operations including the entirety of its supply chain operations. Although the literature covered here is not exhaustive, we hope this article will help focus as well as increase the interest that social responsibility is already attracting in OM research. Managerial implications of this paper include being able to help managers translate their companies' social responsibility agenda to operations and be able to weigh near-term profits against social responsibility.

Section 2 reviews the literature on social responsibility. Following that, Section 3 presents the challenges facing the OM researcher in bringing social responsibility into operations. In Section 4, we attempt to address these challenges with a conceptualization of social responsibility in operations using 'stakeholder resource-based view'. With this conceptualization in place, Section 5 lists research opportunities before the conclusion in Section 6.

2. Social Responsibility

Social responsibility refers to the responsibility of business to society. In the business-andsociety discourse, 'business' means large companies (corporations) because of large companies' "pervasiveness, power, visibility and impact" and because "the powerful are given closer scrutiny" (Caroll and Buchholtz, 2012:6; see also Bowen 1953:6). The focus can narrow further on the senior managers who make strategic decisions at the large companies (cf. Bowen, 1953). Equally, while 'society' is a broad concept, for instance defined as "a community, a nation, or a broad grouping of people with common traditions, values, institutions and collective activities and interests" (Caroll and Buchholtz, 2012:6), researchers should focus on those at the other end of the power spectrum, i.e., groups of people without economic or political power: employees, small suppliers, and local communities.

This narrow definition of business and society assumes that those with power have an obligation to those without power. This is contestable and may seem profligate as regards the fiduciary responsibility of managers towards shareholders. However, there are at least three justifications. (1) It may be in the interest of the shareholders to build value in the long term rather than seek only to maximize profits in the short term.⁷ (2) Society legally provides shareholders of corporations 'limited liability', in return corporations can at least provide corporate taxes. However, tax avoidance by multinationals, including household names like Amazon, Apple, Google, and Starbucks, suggests that companies are successfully avoiding even legal responsibility leave alone social responsibility.⁸ (3) Finally, managers may feel individual responsibility towards employees, suppliers and communities, not just towards shareholders.

2.1 Corporate Social Responsibility

The social obligations of business are generally codified as corporate social responsibility (CSR). Rangan et al (2015) describe two other 'theatres' for a company doing CSR besides philanthropy: operational improvement, and new business models: (1) by improving their core business to make it more efficient, and thus more socially responsible by using fewer resources or by reducing undesirable outputs like pollutants, and (2) by redesigning operations or creating new operations to help vulnerable segments of society.

In the OM literature, there is interest in how CSR initiatives impact purchasing and supply chain management (Cruz 2009) and how supply chain managers incorporate or implement CSR (Maloni and Brown 2006; Carter and Jennings 2004). Perry and Towers (2013) provide a case study of implementing CSR in the fashion garment supply chain. There has also been an interest in social enterprises in the OM literature as to how they help vulnerable segments of society, an area where large companies have fallen short (Seelos and Mair 2005). London et al (2010) examine value creation with social enterprises, while Sodhi and Tang (2011) take a supply-chain perspective on these enterprises.

In general, there remains considerable scepticism about whether a modern corporation can or does fulfil its social obligations (Banerjee 2007; Devinney 2009). For instance, Dow Chemical has not taken any action suggesting *social* responsibility towards the communities affected by the Bhopal tragedy of 1984 despite Newsweek reporting that, as of 2014, more than 500,000 people continue to suffer.⁹ Instead, the company insists on not having any *legal* responsibility following its 2001 purchase of Union Carbide, whose plant killed and blinded tens of thousands in 1984.¹⁰ Such scepticism may explain why research in 'socially responsible operations' tends to focus on social enterprises, small farmers, foundations, etc. Only a handful of papers focus on large company initiatives such as ITC's e-choupal, an electronic platform to provide farmers the company's purchase price one day in advance, and Unilever's Shakti Amma, training women in rural areas to sell Unilever's products with financial help from micro-finance NGOs.

2.2 Sustainability

'Sustainability' has become an instrument for large companies to subsume diverse company initiatives pertaining to CSR, environment, and profitability although the concept as originally conceived is broader in scope (cf. Elkington 1998): The Brutland Commission defined it "as development that meets the needs of the present without compromising the ability of future generations to meet their needs" (Carter and Rogers 2008). Sustainability provides companies a way to align CSR and environmental (or specifically "carbon") efforts with profitability. Elkington (1998) presents sustainability as having three 'pillars' – economic, environmental and social – with overlapping zones. As such, it is better to view sustainability as three overlapping sets of initiatives in a Venn diagram rather than as standalone pillars. An example of an initiative in the overlapping zone is replacing coal by natural gas to produce electricity to reduce the amount of carbon, nitrogen and sulfur released into the environment thus improving the health in nearby communities. But doing so might also be cheaper on a per unit of generated energy depending on relative prices.¹¹

Overlapping zones imply that sustainability efforts should assume the current state of operations is not yet at a Pareto efficient point as regards profitability, environmental and social objectives. This is helpful for a company because it can report initiatives as serving the environmental (or social) cause even when these are economically motivated. This is visible in the annual sustainability reports many companies publish with the most commonly reported sustainability initiatives being to do with reduction in energy consumption.¹²

However, the focus on overlaps avoids the awkward question of how to make trade-offs between profitability and social objectives – see Pagell and Shevchenko (2014) in this regard. There are also trade-offs between environmental and economic sustainability: In the example earlier of replacing coal with renewables (or natural gas), shutting down coal mines adversely affects economic and social sustainability of communities.

The OM literature has considered sustainability from an environmental perspective without explicit incorporation of the social aspects of sustainability (Carter and Rogers 2008). Sustainability has entered the OM literature as 'sustainable operations management' (Kleindorfer et al. 2005), or more commonly as, 'sustainable supply chain management' (cf. Linton et al. 2007; Seuring and Müller 2008; Pagell and Wu 2009; Carter and Easton 2011). One definition of sustainable supply chain management, motivated by the three pillars, is "the strategic, transparent integration and achievement of an organization's social, environmental, and economic goals in the systemic coordination of key inter-organizational business processes for improving the long-term economic performance of the individual company and its supply chains" (Carter and Rogers 2008). Pagell and Shevchenko (2014) argue that research on 'sustainable' supply chain management should be no different than research on supply chains.

2.3 The 'Poor', the Bottom of the Pyramid and Shared Value

The 'bottom-of-pyramid' approach comprises large companies seeking to increase profits by providing goods and services to the 'poor' and possibly by using them as suppliers or distributors in doing so. Such operations can entail redesign of goods and packaging such as Unilever selling shampoo or its skin-colour-lightening product in small sachets to poor consumers in developing countries (Karamchandani et al. 2011). However, selling shampoo in small sachets to poor people or marketing that a fairer skin is better than a darker skin via the similar sachets of Unilever's 'Fair and Lovely' product is arguably not about social responsibility. Moreover, Karnani (2007) provides economic arguments against such marketing consumer goods to the bottom-of-the-pyramid poor. Christensen et al. (2015) have tested price discount strategies with the poor for repeated product usage for essential products such as water filters that prevent water-borne diseases. The deep discount needed for repeat use suggests such a pricing strategy can be justified only for social responsibility, not profitability. Bayer sells agricultural chemicals in small packets to smallholder farmers in

developing countries and is reportedly quite profitable in doing so (Karamchandani et al 2011). Finally, the redesign of modes of production and delivery using the poor as suppliers and distributors *can* make help them in becoming economically better off (Sodhi and Tang 2014).

Engagement with the bottom of the pyramid requires new business models to engage with the 'poor' as customers or suppliers. There is a parallel with the early days of e-commerce in the 1990s when companies would spin off e-commerce units to prevent from getting crushed internally. Likewise, for a large company, initiatives selling to or sourcing from or distributing using people at the 'bottom of the pyramid' may not survive the organizational culture.¹³ For this reason companies make partnerships with NGOs or social enterprises, as Unilever does in India to help finance women entrepreneurs in its Shakti project. Such partnerships can be a challenge owing to different priorities regarding profitability and social objectives so an alternative for companies such as Danone is to create 'foundations' or their own NGOs. Large companies can also provide the infrastructure and support for their nascent bottom-of-pyramid operations. However, such infrastructure may benefit competitors as well.¹⁴ Karamchandani et al (2011) list barriers for companies wishing to engage profitably with the bottom of the pyramid, and how some companies get past these barriers: (1) uncertain cash flows given the large number of low-margin and low-value transactions, (2) gauging demand and working in 'informal' markets, (3) sales and distribution challenges, (4) providers who are neither aggregated nor capable enough to provide quality or volume, (5) business ecosystems that cannot support bottom of pyramid initiatives.

The relationship between the company and those of at the bottom of the pyramid can create 'shared value' (Porter and Kramer, 2006), which recalls the overlaps between the pillars of sustainability "by reconceiving the intersection between society and corporate performance". 'Intersection' suggests that both *can* be improved by "reconceiving products and markets, redefining productivity in the value chain, and building supportive industry clusters at the company's locations" (Porter and Kramer 2006). However, they avoid discussing how to divide the 'shared' value (Coff 1999) between the company at one end of the power spectrum and the customer/supplier at the other end, given that both parties are creating the value together. See Crane et al (2014) for other limitations of the 'shared value' concept.

2.4 Social Responsibility as a Lens for Operations, Not 'Socially Responsible Operations'

In this paper, we refer to 'operations' as a collection of coupled processes that use resources to transform certain inputs into desired outputs, while monitoring performance towards the achievement of desired objectives. Operations can be any 'level', say at the warehouse level or at the country level for a company, or even across the many companies in a supply chain. For instance, at the level of supply chain, we can redefine operations as dealing with "the design and management of products, processes, services and supply chains and...the acquisition, development, and utilization of resources that firms need to deliver the goods and services their clients want."¹⁵

The *social responsibility* of companies or of their managers does not enter these definitions of operations. There is no restriction on undesired outputs like pollutants in the air and water just as there may be no restriction of 'collateral' damage to non-combatants in war operations. There is nothing about whose perspective is taken to view the outputs as being desired or undesired, about who owns what resources or who develops these further or exploits these, or about who should monitor performance and for whose objectives.

However, without an unambiguous conceptualization of social responsibility in operations, we could potentially get such specious arguments: Economic activity helps society, and all operations are tied to economic activity, therefore all operations are 'socially responsible', including, say the use of child labour by Nike's suppliers.¹⁶ Or, all well run operations must be socially responsible because the goal is to improve resource efficiency, so if a company moves its manufacturing plant from a low-cost country to an even lower-cost one, its operations are socially responsible.

Rather than seeking to *categorize* operations as being socially responsible or not, we need to view operations through a social responsibility lens. Doing so can help scholars studying operations additionally study the same operations for social responsibility. This could also help managers in charge of operations to incrementally review and take actions from a social responsibility perspective. Finally, given the huge variety of definitions and objectives for CSR, it is more important that OM researchers should be able consider any set of objectives with related performance measures specified.

3. Challenges to Conceptualising Social Responsibility in Operations

To study operations through a social responsibility lens, the OM researcher faces three related challenges: (1) choosing the level of analysis, (2) incorporating the multitude of social responsibility objectives into operations, and (3) developing theoretical underpinnings, given those in the extant OM literature as well as those in the social responsibility literature.

3.1 Choosing the Level of Analysis and the Unit of Observation

Operations comprise coupled processes that in turn comprise coupled sub-processes and so on, whether within a department or across many companies. Therefore any OM study requires choosing the level and therefore the unit of observation and of analysis. For social responsibility, the level of analysis is typically the (large) company. However, such companies have diverse operations in any category, say purchasing, not just across the globe but sometimes even within the same country. The operations of a typical large company, say, in India, may be almost completely decoupled from those, say, in France and neither can be referred to as the "company's" operations. Finally, the observed operations may be considered 'socially responsible' at one level but not so at another. Consider the following three examples.

One, rainwater harvesting by a beverage company is socially responsible but, at the higher 'supply chain' level, this may be insignificant compared to the use of ground water used up in the supply chain. The brewery company SAB Miller found it needed 155 litres of water for 1 litre of beer with 95% of the water going into the production of the agricultural ingredients, while the World Wildlife Fund found that a 2-litre Coke bottle requires 132 litres of water using the same water footprint estimates as reported by the Wall Street Journal.¹⁷

Two, the resignation of the actress Scarlett Johanssen as 'ambassador' of the charity Oxfam in 2014, highlights the different 'levels' at which Johanssen and Oxfam viewed the operations at the large factory of an Israeli multinational, SodaStream, in the occupied West Bank. Johanssen, now brand ambassador for the company, said their operations in Israeli-occupied West Bank were leading towards peace since it supported "neighbors working alongside…with equal rights". Oxfam, however, pointing to the larger context of the illegal occupation, pointed out that "businesses, such as SodaStream, that operate in settlements

further the ongoing poverty and denial of rights of the Palestinian communities that we work to support."¹⁸

Three, logging operations that provide employment to local impoverished communities can be considered to be socially responsible. However, at a higher 'level', it could also be noted that the trees in question were part of a rainforest being cleared in Guatemala. 'Displaced cultivators' were brought in to grow sugarcane or coffee for export in the cleared area, exposing previously self-reliant farmers to the ups and downs of international commodity markets. The resulting deforestation led to mudslides that killed over 1,500 people during storm Stan in 2005 alone.¹⁹

Rather than there being a 'right' level of analysis for the study of all operations, OM researchers must recognize "that there is this preliminary conceptual issue and that it must be temporarily resolved prior to any given research undertaking" (Singer 1961). The choice of level dictates what or who is included or excluded when viewing through the lens of social responsibility.

3.2 Incorporating Social Responsibility Objectives into Operations

There are a large number of alternative definitions of CSR with widely ranging objectives. Devinney (2009) complains about the definition of CSR being 'malleable'. Dahlsrud (2008) has identified 37 definitions of CSR from various researchers and industry bodies (mostly in the period 1998-2003). And even in the operations literature, Carter and Jennings (2004) take CSR to include business ethics, philanthropy, community, workplace diversity, safety, human rights, and environment.

As such, OM research could view all operations as being (or being required to be) socially responsible just as Pagell and Shevchenko (2014) argue for all supply chain management to be 'sustainable'. On the other hand, a narrower working definition of social responsibility such as "sacrificing profits in the social interest" (Elhauge 2005) does not take into account either inefficiency in operations that affords both profits and social interest or trading off profits in the short term against those in the long term.

Multitude of objectives. Lists of objectives tend to be rather long with these objectives not easily tied to performance measures for monitoring operations. Consider two sources:

(1) Carroll (1979) sums up the different objectives of the firm from his review: profit making only; going beyond profit making; going beyond economic and legal requirements; 'voluntary' activities; economic, legal, and voluntary activities; concentric circles of widening scope around the focal point of economics sustaining the business; concern for the broader social system; responsibility in a number of social problem areas; and giving way to social responsiveness.

(2) According to Bowen (1953:8-12), 'the doctrine of social responsibility rests upon the idea that business should be conducted with concern for the effects of business operations upon the attainment of valued social goals.' These goals are: a high standard of living; economic progress, which includes technological progress, material (plant and equipment) as well as non-material resources (education and training of workers), and the prudent use of natural resources so progress would not be held up in the future; economic stability;²⁰ personal security; order, usually associated with the political system but also having economic connotations; justice, as it applies to distribution of income and opportunity; freedom of enterprise, of consumer choice, of choice of occupation, of organizing to create unions or associations; development of the individual person; community improvement to ensure that the living environment will be healthful and, in general, satisfying social environment; national security; and personal integrity including truthfulness in advertising and selling, observance of contracts, avoiding financial manipulation, and compliance with taxes.

Moreover, there is the 'stage' in the development of social responsibility for a company with objectives that are different at each stage. Sethi (1979) outlines three stages: *social obligation, social responsibility,* and *social responsiveness,* with the last one being 'proactive' in solving social problems. Murphy (1975) argues that social responsiveness is an *advanced way* of thinking about social responsibility. Improving accidents-and-emergency (A&E) queuing performance is a social obligation for a hospital, while redesigning A&E operations for geriatric patients in an ageing society is socially responsive. Social problems could include diverse *people* issues such as ageing society, apartheid, gangs, poverty, racism, recidivism, and teenage pregnancy, including the underlying malaise. Indeed, there are plenty of 'social problems' leaving aside the questions of what a social problem is and whether the operations of a single company or community can or should alleviate this.

Tackling the different objectives. The large number of objectives raises the question of Pareto efficiency or inefficiency. Inefficiency is the same as overlapping zones in sustainability (Elkington 1998) and the 'intersection between society and corporate performance' (Porter and Kramer 2006). The view that social responsibility is the 'sacrifice of profits in the social interest' considers only on the trade-offs, thus assuming Pareto efficiency. Friedman (1970) takes the view that 'the social responsibility of business is to increase its profits' taking a more-or-less single-dimensional cost minimization or profit maximization in the near term.

Another way to deal with multiple objectives, at least in practice, is *satisficing*, which is consistent with managerial behaviour (cf. Ackoff 1970). Courvisanos (2009) describes 'satisficing' and the pertinent economics literature in the context of a country's policy choices for sustainable development. Shareholders may also content themselves with satisficing stock returns (Monsen, Jr. and Downs 1965). Therefore, as long as managers can provide shareholders a threshold level of returns on invested capital consistent with the level of market risk (or other similar companies), they can work towards satisficing 'social' and 'environmental' objectives without worrying about 'sacrificing' profits. This view is useful if managers were public trustees with a remit "to balance the often competing interests of employees, customers, suppliers, communities and shareholders" (Banerjee 2007:6). Thresholds for satisficing can improve continually, as for instance with Toyota Europe's efforts on reducing water and energy consumption per manufactured car.

Intentionality. Companies may have different motivations in announcing socially responsible operations – going with the zeitgeist of climate change; opening up new markets in developing countries and therefore wishing to appear as a good citizen; improving operations to increase profits while still getting the benefit of publicity; or simply ticking off boxes in the CSR category. For instance, India requires 'large' companies (about 6,000 of these in 2014) to spend 2% of their annual profits on CSR so these companies would have to tick many boxes, whether by themselves or in partnership with their own foundation or with an NGO.²¹ But should *intentionality* come into OM research? Consider for instance, how the tea brand Lipton (part of Unilever) leveraged 'sustainability' to improve profit margin and market share in Western Europe. The changes affected its core operations of growing tea by getting tea farms certified by Rainforest Alliance for "worker welfare, farm management and environmental protection" even though the effort was part of a branding exercise led and managed by the marketing function in the company (Braga et al. 2011).

Performance monitoring. Should those who claim to fulfill social responsibility also be the ones monitoring claims (Bowen 1953)? If not, who should do the monitoring and how? In keeping with their *fiduciary responsibility* to shareholders, the managers of companies report via annual reports that are audited by auditors who do so under the law. But to whom should managers report the results of *social responsibility* to and who should audit their reporting under what legal rules? Accounting firms now offer 'sustainability assurance' services but there is no legal obligation covering their 'assurance'.²²

3.3 Developing Theoretical Underpinnings

A further challenge for the OM researcher is to decide whether to or how to remain consistent with theoretical frameworks already in use in the OM literature – typically resource-based view and utility theory – *as well as* those in the social responsibility literature. The alternative would be to develop entire new theoretical underpinnings.

Many empirical operations researchers have employed the **resource-based view** (RBV) at the firm or business unit level, whereby part of the resources are bundled as firm-specific 'capabilities' that the firm develops for *competitive advantage*, albeit in a static economic setting (cf. Wernerfelt 1984; Barney 2001). The resources must raise barriers to entry if competitive advantage is to be gained (Rumelt 1984). In an economic setting that is dynamic, resources have to be changed using 'dynamic capabilities' as the firm seeks *competitive survival* in a rapidly changing environment (cf. Teece et al. 1997). Dynamic capabilities "are the organizational and strategic routines by which firms achieve new resource reconfigurations as markets emerge, collide, split, evolve, and die" (Eisenhardt & Martin 2000) although there are many other definitions (Ambrosini and Bowman 2009). 'Dynamic' refers to the external environment rather than to the capabilities, which are built around 'routines' that are the organization's processes.

Being able to deliver on social responsibility could be a firm's capability or dynamic capability. By using its resources of workers trained in continuous improvement for building capabilities to reduce water and energy usage per car, Toyota Europe gains competitive advantage in that it is better placed than competitors in Europe for complying with any future legal restrictions on water or energy use. Likewise, Coca-Cola has to develop dynamic capabilities in India to ensure the survival of its plants as well as the communities living near them given that both are competing for rapidly reducing groundwater. Government

authorities shut down a Coca-Cola plant in northern India in 2014 as it was using too much water to the detriment of the local community including the farmers; in 2010, another Coca-Cola plant was shut down in southern India owing to the plant polluting surface water.²³ But dynamic capability, say, with the company moving facilities from one low-cost country to another lower-cost one continually, could also be tied to social *irresponsibility*.

In the analytical OM literature, the underpinning is provided by **utility theory** comprising the economics of decision making with rational players who seek to maximize their utility given the possible/actual moves of the other players. One question is how to get 'social responsibility' into utility theory and into game theory. Another question is to identify the relevant players. Even if we can ground the model with data from the real context, the researcher has to face the question whether it would be too ambitious to aim for multi-player games.

The social responsibility literature draws on a number of theories. Garrigia and Melé (2004) classify these theories as: (1) *instrumental theories* with the corporation solely as an instrument for wealth creation so any social responsibility activity only serves to further that aim; (2) *political theories* about the responsible use power of corporations in society and the politics; (3) *integrative theories* on how business integrates social demands based on the assumption that business depends on society for its existence, continuity and growth; and (4) *ethical theories* based on ethical responsibilities of corporations to society.

From an OM perspective, instrumental theories appear consistent with utility theory. Even political power from an OM perspective is for increasing wealth so instrumental theories could be viewed as subsuming political theories on this basis. But then we have the problem of not being able to view any operations through a social responsibility lens at all. Ethical theories are more about what should be rather than what is, and there is evidence to suggest that for large companies, 'ethical' means only what can be defended from a legal perspective. That leaves us with integrative theories, which can potentially be reconciled with instrumental theories to an extent: if a company can meet some social demands even if it does so only to make more profits in the long run, then it is trying to be integrate society into its decisions.

One integrative theory is stakeholder theory (Freeman 1984). The assumption is that managers have fiduciary duties to the corporation, not just to the shareholders, and

stakeholders are all the people and groups with an interest in the corporation. According to Donaldson and Preston (1995), the interests of all stakeholders are of intrinsic value and "each group of stakeholders merits consideration for its own sake and not merely because of its ability to further the interests of some other group, such as the shareowners".

OM researchers need to reconcile these theories to each other or to a new approach altogether if they are going to study operations with a social responsibility lens.

4. Conceptualising Social Responsibility in Operations

This article proposes a 'stakeholder resource-based view' SRBV) that builds on RBV, utility theory and stakeholder theory. SRBV recognizes, whether for a company or for particular operations within a company or across companies, that *there are different groups of stakeholders with their respective resources, routines and dynamic capabilities, seeking to maximize their respective utilities under uncertainty and over their respective time horizons.* Stakeholders for a large company include those involved in operations: *suppliers* such as smallholder farmers and contract labourers, *employees, mid-level managers, senior managers,* and *distributors/wholesalers/franchisees.* Shareholders. And the company itself is not a monolith – instead, we have senior managers, mid-level managers and shareholders of companies.

Under SRBV, each stakeholder (individually or as a group) is treated on a par with other stakeholders from a research perspective regardless of power and material differentials. Doing so avoids the problem of the researcher falling "victim to the preoccupation with the supply side of CSR and business ethics" (Banerjee 2010), thereby taking only the company's viewpoint. Every stakeholder is studied for what they get by way of increased (or decreased) utility, i.e., from their own viewpoint, avoiding the problem of a company claiming it is doing good but with few of the claimed beneficiaries reporting their being better off.

Utility refers to preferences amongst choices with uncertain outcomes now or in the future, allowing researchers to focus on and differentiate stakeholder-specific drivers of effort. Maximizing (expected) utility under risk is a powerful idea that subsumes both maximizing competitive advantage (RBV) and survival (dynamic capability) given the absence or presence of uncertainty.

The unit of observation is the "operation", whatever its scope. The researcher has to scope out the breadth and level of the operations of which the above are stakeholders. Each stakeholder (or stakeholder group), with their individual view of the operations (or part thereof), has stakeholder-specific resources and capabilities, including the stakeholder-specific capability to extract rent if at all. The resources for a particular supplier may not be 'valuable', nor might there be heterogeneous performance across different suppliers. Furthermore, these stakeholders will have their own routines and dynamic capabilities. Utility considerations may be different for different stakeholders owing to risk aversion as well as what they can do to achieve higher utility (**Table 1**).

There are three overlapping roles for SRBV: (a) a *descriptive* one (**Table 1**), (b) an *instrumental* one for measurement of factors (resources, capabilities, etc.) and measurement models of stakeholder-specific utility, and (c) a *normative* one by suggesting or at least framing the best course of action for each stakeholder in light of the possible actions of other stakeholders; Donaldson and Preston (1995) discuss these roles for stakeholder theory. Qualitative researchers doing field studies or case studies will find SRBV useful for descriptive approach. Empirical OM researchers will find the SRBV useful for measuring how gets what and how, and to create measurement models for stakeholder-specific utility. Finally, analytical OM researchers would find SRBV useful in its normative approach.

The normative approach suggests exploitation of synergies: To the extent the resources of the suppliers and employees can be made more valuable, both senior managers and shareholders are better off as regards their own utility values because employees and suppliers are their resources (**Table 1**). Furthermore, to the extent improving the employee skills and supplier resources can be marketed as fulfilling social responsibility, consumers too may obtain higher utility from buying the company's products. However, not all senior managers seek to improve employees' or suppliers' resources: they face a trade-off in terms of sharing a bigger share of a small pie versus a smaller share of a larger pie when it comes to vertical competition with their employees and suppliers. There is also the consideration of potentially helping competitors by training employees who might move to competitor companies, or by up-skilling suppliers, who might supply to competitors or already do so. So not all companies make these choices and may be content with keeping employees and suppliers with the barest amount of skills.

Table 1: Examples of stakeholders for a large company/business unit with suggested resources, routines, dynamic capabilities and considerations in maximizing utility. Not included is government or community, both of which in turn comprise many stakeholders.

Suppliers	Resources: Factors of production – land, labour, capitalRoutines: Production/service processesDynamic capabilities: Learning new production techniques, maintaining relationswith other suppliers and with govt.Utility considerations: High aversion to risk of income, e.g., not getting the nextorder
Employees	Resources: Knowledge and skills – may or may not be 'rare'Routines: Working on the job; union meetingsDynamic capabilities: Learning skills to remain attractive to the employer and tothe job market in generalUtility considerations: Lifetime earnings including pension; promotion, salaryincreases are critical
Mid-level managers	Resources: Knowledge and skills – may or may not be 'rare'; relationships with senior managers and employees Routines: Working on the job Dynamic capabilities: Seeking breadth of responsibilities Utility considerations: Lifetime earnings including pension and bonus for meeting performance targets; promotion, salary raises are critical
Senior managers	<i>Resources</i> : Factors of production; employees and mid-level managers; relationships with board members, other senior managers and employee unions; distributors; government officials; employees; suppliers <i>Routines</i> : Stakeholder management: avoid suppliers holdouts, employee strikes, distributor requirements of inventory and payment terms; manage relations with govt. officials <i>Dynamic capabilities</i> : Increasing the resource base under direct or indirect control <i>Utility considerations</i> : Lifetime earnings including pension and bonus for meeting performance targets plus share of growth in shareholder value
Distributors, wholesalers, franchisees	<i>Resources</i> : Capital to hold inventory; access to retailers, large customers <i>Routines</i> : Forecast, order, receive, take orders, fulfil orders; arrange financing of working capital <i>Dynamic capabilities</i> : Look for more volume and more companies to sell for <i>Utility considerations</i> : Continuity of supplies; volume and margin
Consumers	<i>Resources</i> : Money to buy goods and services <i>Routines</i> : Searching for the right good; using/disposing goods after use <i>Dynamic capabilities</i> : Ability to join boycotts of products/services <i>Utility considerations</i> : Multi-attribute: price, convenience, social status, "doing good", etc.
Shareholders	Resources: Capital; share in the resources of the company Routines: Overseeing senior management regarding shareholder value Dynamic capabilities: Look for new investments; look for where shareholder value might be hurt in the long run Utility considerations: Shareholder value
Bank	Resources: Capital Routines: Risk adjustment; reduce/increase revolving credit Dynamic capabilities: Look for new segments of customers to lend (e.g., micro- finance) Utility considerations: Expected return on capital

Regarding the challenges outlined in the previous section, besides building on theories of use in the OM literature (analytical as well as empirical) and those in the social responsibility literature, SRBV allows the researcher to tackle the other two difficulties:

(1) The different *objectives* are split up across the different stakeholders and the researcher can incorporate any stakeholder's objectives into that stakeholder's utility.

(2) The *level of analysis* is no longer a problem because SRBV makes the (selected) stakeholders and their utility explicit. Under SRBV, the researcher treats all stakeholders of interest on a par with each other to understand them at an economic level. Different researchers may select different subsets of stakeholder groups, which would affect the view on 'social responsibility' as in the three examples discussed earlier. But researchers can agree on any stakeholder' utility derived from the operations in scope.

Note also that there is no 'company' as a stakeholder, only various actors, hence a focus on managers. And rather than look at operations of large companies for social responsibility, the researcher is free to study any operations, whether run by social entrepreneurs, foundations of large companies, or philanthropic organizations.

There is extant literature that the OM researcher can draw on when using SRBV. See Peng et al. (2008) for operational capabilities that build on routines in a manufacturing plant-level operations setting. Hart (1995) has specialized RBV for a natural-resource-constrained environment, wherein pollution prevention, product stewardship, and sustainable development are three capabilities that build on the key resources of continuous improvement, stakeholder integration and shared vision respectively. RBV has been broadened to the 'extended RBV' to cover interconnected firms, which distinguishes shared resources from non-shared resources; identifies new types of rent; and illustrates how firm-, relation-, and partner-specific factors determine the contribution of network resources to the rents extracted from alliance networks (Lavie 2006). This is important because social responsibility may require a firm to build alliance network with suppliers, NGO partners and even competitors.

5. Research Opportunities

Bringing social responsibility in the OM literature dramatically increases opportunities for research. This is because, as SRBV makes explicit, the researcher can choose any subset of a large number of stakeholders for study and suggest norms for their choices rather than take the viewpoint of only one or two groups of stakeholders. We argued earlier that SRBV has descriptive, instrumental, and normative uses. Accordingly, there are three (overlapping) sets of opportunities for research and we use the other papers in this special issue as examples.

5.1 Opportunities for Descriptive Research

There is a dearth of well-researched case studies or even descriptions of different operations settings detailing how different groups of stakeholders became better off because of the operations. These instances are presented from the viewpoint of the 'company', which can boil down to 'supply side' stories presented by the company's public relations department. Treating all stakeholder groups on a par with each other will give us a truer picture of social responsibility. It would also help compare ground reality from the stakeholders' viewpoint to the companies' CSR values as listed on their websites.

One research question can be about the type of operations and how these operations are being economically sustained: What's the business model and where's the money? Implicitly, this research question can include research objectives tied to *value creation* and *value delivery* (London et al. 2010) and *value sharing* (say between micro-entrepreneurs and the corporation as between farmers and ITC in the latter's e-Choupal project). Sodhi and Tang (2012) attempt to understand how the supply chains of individual micro-entrepreneurs can be strengthened by social enterprises, and examine the economic sustenance of such operation. At this stage of research, phenomenological investigation and reporting on the organizational context by way field study and ethnography would be quite useful as a foundation for further research. Furthermore, there are research opportunities to qualitatively frame the key drivers for the success or failure of different social enterprises.

Using examples from field studies, Besiou and Van Wassenhove (2015) characterise socially responsible operations as having complexity, unfamiliar context and counter-intuitive behaviour, stemming in part from having multiple stakeholders with conflicting goals. This implies that a straightforward application of, say, models for supply chain planning for a

single company may or many not work for, say, a humanitarian crisis. As such, they provide ways to understand the 'big picture' first to ensure that the sub-problem being targeted is the right one before applying a classical optimization technique to it. A descriptive use of SRBV would be a step in this direction.

Multi-way partnerships. Another research question is to develop an understanding of the multi-way partnership and factors behind success/failure for particular operations, say, humanitarian operations, where there are diverse 'partners' by way of, say, foreign donors, local communities, NGOs and the regional government (Besiou and Van Wassenhove 2015). Unless all these partners coordinate their efforts with aligned incentives despite different objectives, it is unlikely the targeted social problem will be alleviated. SRBV can help to frame the respective drivers of each partner's utility and how the partners' efforts lurch towards success or failure.

Unanticipated side effects. The study of unanticipated *side effects* of seemingly socially responsible operations requires a careful understanding of a wider set of stakeholders. For instance, donated clothes can have a detrimental impact on local apparel and retail industry, as seen in Africa. Long-term impact of humanitarian aid following floods in Pakistan in 2010 also meant slower recovery for communities that were devastated. If socially responsive efforts result in farmers becoming much more productive, there will a major shift of labor workforce from the agricultural sector to other sectors. This in turn leads to greater rate of urbanization that brings its own set of problems. Thus, looking at a wider set of stakeholders, as with SRBV, can help anticipate 'side effects'.

Social irresponsibility. Research in social irresponsibility beyond excellent journalism is limited and there is little in the OM literature. One example of arguably 'social irresponsible' operations include Nestlé's infamous marketing campaign: salespeople in hospitals dressed as medical staff to target new mothers in developing countries to make these mothers believe that Nestlé's infant formula was superior to breast milk for their infants.²⁴ Large companies setting up elaborate operations to avoid taxes is not a new problem (Christensen and Murphy, 2004) but the Big Four accounting firms offering tax avoidance as well as Sustainability Assurance services could be of interest. Comparing companies' stated CSR values and their actions/inaction using content analysis could also be interesting to OM researchers. Armstrong (1977), using behavioural experiments, suggests the problem of *irresponsible* behaviour among managers may be widespread and is possibly linked to 'stockholder'

perspective (Friedman 1970) rather than a 'stakeholder' one. Lange and Warshburn (2012; 2013) draw on attribution theory to consider the perception of irresponsible behaviour but managerial implications of such research are how to limit perception problems rather than do something with operations; see also Chatterji and Listokin (2007) and Wagner et al. (2008) in this regard.

Understanding stakeholder preferences. There are plenty of opportunities to research the decision making of the poor in emerging markets. For instance, as feature mobile phone penetration rate exceeds 90% in India, companies such as Reuters Market Light (RML) and Nokia are offering information services to farmers (cf. Chen and Tang 2015). By paying a fee, farmers can gain access to market information via SMS messages. As such, there are many open research questions regarding farmer's actual decision making with the presence of this kind of information services. Some key issues to investigate include identifying the key drivers for farmers as regards paying for subscription, how farmers use the information in practice to make farming decisions, and whether or not such market information actually helps farmers to earn more.

5.2 Opportunities for Instrumental Research

Many instrumental studies in the social responsibility study the value to the company rather than to society from the delivery of the company's social responsibility agenda. There are empirical studies for identifying key drivers for certain phenomena and/or testing different hypotheses about the relationships of different factors. Frooman (1997) does a meta-analysis of event studies to examine the impact of socially responsible announcements on the stock performance of a firm – similar work could be done with companies' social responsibility performance.

Impact studies. Measuring the alleviation of the targeted social problem across different time frames and scopes requires field study by way of so-called 'impact' studies. For example, as companies such as Nestlé and Walmart are developing initiatives intended to help farmers to improve their productivity and quality, one can examine the impact of these programs on labour mobilization. Dupas and Robinson (2012) conducted field based experiments in Kenya to examine whether limited access to formal savings services impedes business growth and that better access led to better outcomes as regards percentage of female market vendors. Mittal (2010) finds that farmers subscribing to market information via

mobile phones enjoyed higher income, while Fafchamps and Minten (2012) find no evidence supporting this claim. There is room for analytical models here too: Chen and Tang (2015) to examine the underlying reasons of this inconclusive result for the case when farmers engage in (Cournot) competition. Using an analytical model, they find that more accurate market information can have a detrimental effect because such information would encourage all farmers to increase their production, which would drive the market price down.

Monitoring suppliers. Companies that face consumers directly do not wish to be associated in the media with such problems as child labour at suppliers or poor work conditions of workers. As such, they monitor suppliers and offer them penalties and rewards for compliance to the buying company's policy. Which is more effective: offering penalties or offering rewards? Porteous, Rammohan and Lee (2015) analyse the responses from practitioners at 334 companies to identify the specific penalties and incentives that reduce supplier violations as well as buyer operating costs. They find that incentives for improving social and environmental performance by way of increased business and training opportunities rather than penalties are strongly associated with a reduction in the company's violations and operating costs.

The role of markets in improving social welfare. As groundwater gets depleted in many countries, a solution to manage it better is to trade it on the market. However, Murali, Lim and Petruzzi (2015) show that exporting water through a water market with exogenous price is detrimental to both society and the environment within the community if we consider 'triple bottom line benefits'. In contrast, fixed quantity trading between two municipalities (with endogenous negotiated price) can have a positive impact globally. A privatized municipality would be more likely to export with negative implications for the local community. However, if exports were to be banned, privatization can be beneficial. Their work generalizes to other commodities as well: consider for instance, India's ban on export of cotton in 2012 and a 30% tax to discourage export of iron ore in 2011.

Online platforms also help sellers transact with buyers, increasing the reach on either side. For instance, a significant amount of waste currently going to landfill or incinerators could potentially be re-purposed. Dhanorkar, Donohue and Linderman (2015) consider why such exchanges have had limited take-up. They find that (a) sellers are not committed especially if there are alternatives available locally, and (b) buyers face uncertainty regarding what exactly they are purchasing, given lack of information about the seller and about what is on offer.

Their work has implications beyond such exchanges to those of manpower such as Men on the Side of the Road in S. Africa and freight-boards for truck transportation in Africa or Asia as there may be similar factors affecting lack of take-up.

Behavioral experiments. Mobile-based finance has been considered as a major breakthrough to help the poor conduct financial transactions (savings, loans, remittances, loan repayments, payments) over the mobile phones (Lee and Tang 2012). How would mobile finance services with instant access change the spending and savings habits of the poor? In addition to mobile finance, Kiva is one of the leading social enterprise facilitating online lending by provides information about the lenders and the borrowers on its portal (Sodhi and Tang 2011) and offers opportunities for behavioural experiments. Christensen et al. (2015) report the results of a longitudinal study of bottom-of-pyramid consumers in Malawi as regards usage of a water filter based on the discount and found that those who paid a deeply discounted price were more likely to re-obtain and use the product than those who got it for free or got only a moderate discount: such results are hard to predict analytically.

5.3 Opportunities for Normative Research

Analytical models and their analysis of socially responsible operations provide a rich source of research in OM. Tang and Zhou (2012); Chen et al. (2013), Devalkar et al. (2011) and McCoy (2012) provide welcome first steps. To examine the potential value created by firms who use the poor as producers and/or distributors, Sodhi and Tang (2014) develop and analyse different stylized models and find that using the poor as producers and/or distributors can create a win-win situation: the poor obtains higher earnings, and the firm achieves higher profit.

In many developing countries, the poor usually serve as producers (farmers, rug weavers, etc.) or as micro-retailers. Given the importance of agriculture in developing countries, (smallholder) farmers supplying large, typically western, companies have attracted attention in current OM research.

Aggregating smallholder farmers in developing countries. Aggregating smallholder farmers via cooperative or other aggregations has attracted the attention of policymakers, those interested in social development and certainly many OM researchers (Chen, Shantikumar, and Shen 2015). Such farmers (or, in general, such suppliers) can improve their

resources by aggregating together as the aggregate resources are more non-substitutable. An, Cho and Tang (2015) analyse five potential benefits that aggregations are supposed to provide: (1) reduce production cost; (2) increase/stabilize process yield; (3) increase brand awareness; (4) eliminate unnecessary intermediaries; and (5) eliminate price uncertainty. However, using game theory, they find that cooperatives (or other aggregations) of smallholder farmers are not necessarily a silver bullet relative to farmers who choose not to join the cooperative. Rather, it is beneficial for a farmer to be part of the aggregation only when the size of the aggregation is below a certain threshold. Also, the benefits to the market may not be straightforward as higher market price and/or lower production quantity could result.

The government seeking to balance interests across stakeholders. If market power means social welfare is suffering, government may intervene with taxes or other requirements. Park, Cachon, Lai, and Seshadri (2015) consider social welfare stemming from optimal application of carbon taxes with retailers seeking to maximize profit and consumers seeking to maximize utility. They show that in a monopoly setting, imposing carbon taxes on the retailer and on the consumers does not change the supply chain structure. In contrast, the government will find carbon taxes to be more effective as the competition becomes higher and retailers' profits are low.

Online platforms/forums. One way to develop resources for smallholder farmers is online or telephone forums. But conceiving and operating such platforms requires careful considerations. Companies such as ITC and Tata in India and Barilla in Italy have created online forums for sharing knowledge to help the farmers with 'best practice' knowledge and encourage them to share knowledge with each other. However, these forums need to be designed with care. For such a forum with experts and (some) knowledgeable farmers, Chen, Shanthikumar and Shen (2015) use game-theoretic analysis to show that knowledgeable farmers never provide answers that are more informative than the experts in equilibrium. Having more experts deters knowledgeable farmers from participating as does charging for participation.

Private sector information providers such as RML (Reuters Market Lite) in India improve the quality of information currently available to smallholder farmers but require paid subscriptions. The alternative is for governments to set up (or improve access) to providing public information that farmers can access free of cost. Chen and Tang (2015) show the value

of private services decreases as public information services improve. Both reduce price variation, thus reducing the farmer's risk in the choice of when and where to sell, but the value of either gets lower with higher risk aversion.

6. Conclusion

To conceptualize social responsibility in operations, this article argues that rather than classifying operations as being responsible or not, the researcher needs to observe and analyse operations through a social responsibility lens. Three challenges were noted in developing such a lens: (1) what should be the level of analysis, (2) how to deal with the multitude of objectives, and (3) how to develop the theoretical underpinnings that are consistent with those for OM and those for social responsibility. We then proposed 'stakeholder resource-based view' to overcome these challenges and noted that such a view affords a combinatorial explosion of OM research opportunities.

But why should OM researchers avail these opportunities in this domain and not others? James Wolfensohn (former President, World Bank) acknowledged during the 1999 Seattle World Trade Organization meeting that, "*at the level of people, the system isn't working*". If so, as Banerjee (2007:126) asks, what other level is there?

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Notes

³ <u>http://www.businesscalltoaction.org/</u>. The website claims 104 companies signed up to launch initiatives. However, as of Feb. 2015, achievements were listed only as 'expected' for 2020.

⁴ <u>www.un.org/millenniumgoals</u> for details on the UN Millennium Goals; downloaded on 15 Jan. 2015. These goals have been declared met through the efforts of countries and development organizations – there is little mention of business.

¹ Keynes, J.M. 1926. 'Liberalism and Labour' from *Essays in Persuasion*, reprinted Classic House Books, New York, 2009.

 $^{^{2}}$ However, CEOs of major corporations have been making speeches to this effect since the beginning of the 20th century at least. See Bowen (1953) for quotes.

² However, CEOs of major corporations have been making speeches to this effect since the beginning of the 20^{th} centur//wtwleastussessessessessessessessessesses claims 104 companies signed up to launch initiatives.

⁵ https://www.unglobalcompact.org/ .

⁶ See <u>www.nestle.com/CSV/</u> for Nestlé's, <u>www.scsglobalservices.com/starbucks-cafe-practices</u> for Starbucks', <u>www.unilever.com/sustainable-living/</u> for Hindustan Unilever's, and walmartstores.com/sites/responsibility-report/2012/globaldirect.aspx for Walmart's efforts.

⁷ The word 'profits' should be used with reference to short- or long-term, whereas in the social responsibility literature this is typically not the case.

⁸ V. Barford and G. Holt (2013), 'Google, Amazon, Starbucks: The rise of 'tax shaming', BBC News, available at <u>http://www.bbc.co.uk/news/magazine-20560359</u>, accessed 11th Nov 2013.

⁹ Elliott, J. (2014). India: After 30 years, Bhopal is still simmering, Newsweek, 12 Jan., http://www.newsweek.com/india-after-30-years-bhopal-still-simmering-288144

¹⁰ See http://www.dow.com/company/citizenship/.

¹¹ According to the US Environmental Protection Agency (EPA) electricity generation using natural gas produces half as much carbon dioxide, less than a third as much nitrogen oxides, and one percent as much sulfur oxides at the power plant compared to coal. See <u>http://www.epa.gov/cleanenergy/energy-and-you/affect/natural-gas.html</u>. However, 2014 saw a major shift in the US from natural gas to coal as coal prices tumbled in response to the gas production using fracking.

¹² Papoutsi, A. and Sodhi, M. 2015. Sustainability reporting. Work in progress.

¹³ This happened in my own experience working on a particular social initiative with a large FMCG company. Although the initiative was rated highly by managers from the company worldwide, one particular brand shot the project down.

¹⁴ This was a consideration, for instance, for Unilever when getting farmers certified for sustainability for its Lipton brand because the farmers could equally help its competitors. However, Unilever does have the largest market share so the benefits were expected to accrue largely to the company.

¹⁵ Taken from, "What is Operations Management?" <u>http://mitsloan.mit.edu/omg/om-definition.php</u>, downloaded on 15th Jan. 2015.

¹⁶ In 2008, Nike admitted its Chinese supply chain to be suffering from a lack of transparency, problems with wages and the use of underage workers.

¹⁷ The so-called water foot print shows that. See the article by Alter, A., "Yet another footprint to worry about," *Wall Street Journal*, Feb. 17, 2009, p. A11.

¹⁸ BBC News, "Scarlett Johansson quits Oxfam role over SodaStream row," 30 Jan. 2014, downloaded from <u>http://www.bbc.co.uk/news/world-us-canada-25958176</u>.

¹⁹ See for instance, <u>http://rainforests.mongabay.com/20guatemala.htm</u>.

²⁰ By contrast, consider the financial crisis in the West of 2009, from which economic instability was continuing even as of this writing in 2015.

²¹ Guardian Sustainable Business, Aug. 11, 2014. India's new CSR law sparks debate among NGOs and businesses, http://www.theguardian.com/sustainable-business/india-csr-law-debate-business-ngo

²² As a result, 'assurance' services are billed at a much lower rate than audit services.

²³ Financial Times, June 19, 2014, "Water shortage shuts Coca Cola plant in India", downloaded from <u>http://www.ft.com/cms/s/0/16d888d4-f790-11e3-b2cf-00144feabdc0.html</u>. Part of the reason is competition for water with small farmers. See also the Observer, March 19, 2006, "Coke 'drinks India dry", downloaded from <u>http://www.theguardian.com/money/2006/mar/19/business.india1</u>.

²⁴ M. Muller, 2013, 'Nestlé baby milk scandal has grown up but not gone away', available at <u>http://www.theguardian.com/sustainable-business/nestle-baby-milk-scandal-food-industry-standards</u>, accessed 11th Nov. 2013.