SOCIALLY RESPONSIBLE PLASTIC

Is This Possible?

Edited by David Crowther
and Farzana Quoquab

DEVELOPMENTS IN CORPORATE GOVERNANCE AND RESPONSIBILITY

VOLUME 19

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THE DILEMMA OF PLASTIC

David Crowther and Farzana Quoquab

ABSTRACT

This chapter introduces the subject matter of this book and clearly depicts the dichotomous nature of plastic: it is both problematic because of the pollution caused and beneficial because of the benefits it provides. This is set within the context of sustainability, being probably the key concern of the present. It highlights the volume on plastic in existent and the possible consequences from a lack of biodegradability. In doing so, it sets the context for the contents of the book.

Keywords: Biodegradability; plastic pollution; sustainability; recycling; risk; trickle-down theory

INTRODUCTION

Plastic has had a bad press recently as the cause of global pollution and associated environmental problems. This is ironic because previously plastic had had a good press as beneficial with economic benefits, such as reduced cost, and social benefits, such as increased hygiene and preservation of food. There is no doubt, however, that plastic products have very high global warming impact and will be in the environment for hundreds of years. Half of all plastic produced is described as single-use plastic, designed to be used once before being thrown away. The used plastics are dumped into landfills and thrown into ocean which causes serious environmental pollution leading to health hazards. Gradually, it has become recognised that there are hazardous impacts on human health, society and nature on the earth, and therefore many organisations and individuals have started to embrace the concept like 'zero plastic bag use', 'no single use plastic' etc. (Omar et al., 2019).

There is a problem in many countries: consumers are accustomed to plastic bags and their convenience in their daily life, while recognising that it is not environmentally friendly to do so. For example, use of plastic bags by street

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sellers, food courts and take-away coffee and food shops is very common in many developing and underdeveloped countries (Quoquab & Mohammad, 2021). Nevertheless, it is recognised as having a harmful impact on biodiversity, climate and human health; indeed we are eating and breathing plastic particles in our normal life. Thus the world is seriously threatened by the environmental pollution caused by plastic. Some countries are very advanced in accepting the need for environmentally friendly behaviour and changing behaviour, while others are much less so and still lagging behind in this matter. Generally, the adoption of environmentally friendly behaviour is still in its infancy in developing countries, compared to more developed ones. It must be recognised that this is a global problem as cannot be satisfactorily dealt with by some countries alone.

THE GOOD BAD DICHOTOMY

One of the problems of course is the current trend towards dichotomisation: everything is either good or bad. The reality of course is that plastic (as are most other things) is both good and bad depending upon the circumstances (Crowther, 2019). Thus, it is unquestionably beneficial for medical purposes (Gardiner & Hartzell, 2012). Indeed some medical treatments in their current form would not be possible, or only with greater levels of risk, in many cases without plastic (Edmonds & Sanabria, 2014). It is lightweight, durable and cheap to produce; more significantly it is hygienic and versatile (Brookshire et al., 1997). This has resulted in the development of many new forms of treatment including current investigation into 3D printing of body parts – things which were previously not possible. At the same time, there are many deleterious effects caused by the very common use of plastic. These are well documented and range from damage to wildlife to sea life (Eriksen et al., 2013) and also to the effects it is having upon human health (Wright & Kelly, 2017).

It is clear therefore that the use of plastic is a controversial topic, worthy of further investigation. This is particularly true given that the media have seized upon the 'demon' plastic and castigated it: a view which has been taken up enthusiastically by politicians also. Attracting particular opprobrium is what is described as single-use plastic – that plastic which is designed to be used only once and then thrown away. This relates particularly to food packaging and such packaging with the use of plastic bags. Indeed, the British government, some years ago, introduced a tax on plastic bags provided by shops to carry purchases, with the result that they have largely disappeared from the high street. Two issues must, however, be raised. The first is that much medical use of plastic must of necessity be single use. The second is that if plastic is not used for packaging, then something else must be used (Humbert et al., 2009; Sid et al., 2021) with some environmental impacts as well as economic impacts.

A EMPHASIS UPON SUSTAINABILITY

Although over the last couple of decades there has gradually been an increased emphasis in corporate activity upon corporate social responsibility, this has changed more recently into a concern with sustainability. Indeed this seems to have become a ubiquitous term applied by everyone to all activity. This can be seen in the fact that companies which previously had produced environmental reports have more recently renamed them as reports about corporate social responsibility. These are now generally known as sustainability reports (Crowther et al., 2017). If it can be persuaded that corporate activity is sustainable, then one of the consequences of this is that the cost of capital for the firm is lowered as potential investors tend to think that the level of risk involved in their investment is lower and therefore a lower rate of return is acceptance. It has been argued (Crowther & Yang, 2012) that this understanding of the risk associated with the sustainability of investment is as significant as a reputation for good governance which similarly has a clear relationship with the cost of capital and is similarly lowered for good governance procedures. It is argued therefore that the methodologies used for the evaluation of risk are insufficient because of the misrepresentation of the factors of sustainability; in other words, current methodologies for evaluation falsely tend to over-value the short term and under-value the longer term. This therefore leads to the argument that better evaluation by investment analysis will inevitably lead to better strategic decision-making.

Over recent decades, the debate about globalisation has continued, and this can be depicted as a dialectic between the supporters of an unregulated world and those who are equally opposed to such uncontrolled capitalism – a conventional Kantian dialectic. Indeed there seems to be a consensus that the current free market and unregulated world – described, pejoratively, as the free market – have been in ascendance. It is indisputable that the dominant ontology of the modern (western) world is that of the free market which its supporters argue, if unregulated, maximises economic wealth and optimises its distribution. This is based upon the unsubstantiated premise that trickle-down theory will ultimately benefit all as wealth flows down from the rich to the poorer, conveniently ignoring that there is no evidence to support this theory. This has led to increasing pressure upon governments around the world to reduce, and even eliminate, regulation so that we may all benefit from the prosperity which ensues from the free market, something which seems to fit with the dominant political wills of those in power. This is despite the fact that the President of the United States has, in 2022, openly decried the falseness of trickle-down theory on more than one occasions. To support this assertion, the idea of 'trickle-down theory' (Aghion & Bolton, 1997) was invented by the Chicago School of Economics and widely accepted without the existence of any evidence whatsoever. Additionally this discourse ignores the fact that a completely unregulated free market only operates effectively in a situation of perfect competition – something which only exists in introductory economic theory and never in reality! The opponents of an unregulated world, on the other hand, are more diverse as they represent motley collection of people and interests who do not have anything in common except for their opposition to the

elimination of regulation and the resultant triumph of global capitalism. Any discussion between these two groups tends to be confrontational and in actual fact it is unrealistic to describe this communication as a discourse: both sides seem to be not interested in discussion so much as dominance for their view which they seem to hold unquestioningly. This would seem to be a problem which is not subject to resolution in the manner of a dialectic; there seems little scope for any synthesis to emerge as resolution. One aspect of the synthesis which has developed, however, is encapsulated in the concepts of sustainability and corporate social responsibility.

Over time, the language used by business tends to change and the term corporate social responsibility seems to have been replaced by the term sustainability. All languages used in business communications must be considered semiotically (Barthes, 1973) and thus been seen as a means of creating the impression of sustainability, regardless of actuality. Using such semiotic analysis (Crowther, 2012) then it can be seen that the signification is about inclusion within the selected audience for those corporate reports, based upon the assumption that those included understand this signification in a way which is in common with the authors. This argument is of course based upon an assumed shared understanding of the code of signification which is used in describing corporate activity. As Sapir (1949, p. 554) states:

> ... we respond to gestures with an extreme alertness and, one might almost say, in accordance with an elaborate and secret code that is written nowhere, known by none and understood by all.

It is of course comfortable for all involved to assume this shared signification based upon a shared understanding of the language used; this shared signification might well however be completely fictitious. An alternative interpretation, which some would regard as more sinister, would be to consider that the language of the statements which are used about sustainability are actually made in the Orwellian (Orwell, 1970) sense of being used as a device for corrupting thought; in other words the statements made are used as a means of preventing thought about the various alternative interpretations of the activities of the organisation. It is of course entirely dependent upon one's own ontological viewpoint and one's own understanding of sustainability how one chooses to views these statements.

All of this argument stems from the social contract and consequent expectations. As described this has become manifest through the discourse of sustainability – in business, in politics and by people in general. Certainly it is evident that the term sustainability has become ubiquitous both within the discourse of corporate performance within the discourse of corporate performance as well as within the discourse of social behaviour. This effectively can be interpreted as a concern for the future, although the behavioural changes required to ensure that future are much less evident than the discourse and public statements. The term sustainability has become widely used, as described, but the actual meaning of the term is much less certain – possibly because of the implications of considering its actual meaning and consequent actions necessitated to ensure it.

The most widely used definition of sustainability is that it is concerned with the effect which action taken in the present has upon the options available in the future (Crowther, 2012). It is apparent that if resources are used in the present, then they will no longer be available for use in the future; this of course becomes significant if the resources are finite in quantity and not renewable, such as minerals and metals (Seifi, 2021). This means, in effect, that raw materials of an extractive nature are finite in quantity and obviously once used will no longer be available for future use. At some point, therefore alternatives will be needed to fulfil the functions currently provided by these resources. This may be relatively simple with energy and a switch to renewable but much less simple with minerals such as copper, which incidentally is a trace mineral which we all need to stay alive. This situation may be at some point in the relatively distant future but Seifi (2021) provides data to show that this is in the near future. According to Seifi (2021), of greater concern is the fact that as resources become depleted then the cost of acquiring the remaining resources tends to increase, and hence the operational costs of organisations tend to increase; so too does the significance of geopolitics. Equally if (or rather when) a plant or animal becomes extinct, then the benefits of that species to the environment can no longer be accrued. As many pharmaceuticals are currently being developed from plant species still being discovered also this might be very important for the future of humanity.

It is indisputable that managing sustainability requires that society must use no more of a resource than can be regenerated and this must continue on an ongoing basis. This has been defined in terms of the carrying capacity of the ecosystem (Hawken, 1993). It is important that all organisations are viewed as part of the wider social and economic system as sustainability can only be addressed on a global basis. This implies that the effects of all actions, whether internal or external, must be recognised and thereby taken into account, not just for the measurement of costs and value created in the present but also for the future of society as well as the business itself. Thus, the concern with sustainability must be at the global, national, societal levels and at the micro levels of individual organisations and people. The ramifications are very significant. At this micro level, measures of sustainability should take into account the rate at which resources are consumed by the organisation in relation to the rate at which resources can be regenerated. This must be considered as whole and so unsustainable operations can be accepted by developing sustainable operations or by planning for a future which lacks some of the resources currently required. In reality, however, it seems that organisations tend to aim towards less unsustainability by increasing the efficiency in a way in which resources are utilised while expressing the need for sustainability and the actions being taken. A simple example could be an energy efficiency programme.

We have already argued that sustainability is an uncertain topic because it is interpreted differently by different groups (Aras & Crowther, 2009), and it is by no means certain whether it can be delivered in the straight-forward manner they promise (Schmidheiny, 1992). The starting point however seems to be always the definitions contained in the Brundtland Report (WCED, 1987) because there is a general agreement with the contents of that Report and because the definition of

sustainability in there is widely accepted. Equally, the Brundtland Report is a significant part of the generally accepted policy of the United Nations, nation states and big businesses; it is expounded through vehicles such as the World Business Council for Sustainable Development (WBCSD) and International Climate Convention (ICC) (see, for example, Beder, 1997; Gray & Bebbington, 2001; Mayhew, 1997). More recently, however, Crowther and Seifi (2016) have argued that this starting point is wrong, arguing that the debate has become derailed and that these concepts are no longer central to the achievement of sustainability; in other words, if we start from the wrong place, then we will not arrive at our intended destination.

Adding to the uncertainty surrounding the concept of sustainability is that for some groups sustainability implies nothing more than stasis – the ability to continue in an unchanged manner. For most, however, it is taken to mean development in a sustainable manner (Hart & Milstein, 2003; Marsden, 2000): for most, the terms sustainability and sustainable development are considered to be synonymous. Indeed since the Bruntland Report was produced by the World Commission on Environment and Development in 1987, there has been a continual discussion about sustainable development as being desirable (Chambers, 1994; Pretty, 1995) and what this implies. This has added to the confusion and conflation between the two terms of sustainability and sustainable development.

ANALYSING QUANTITIES

It is pertinent to consider not just the amount of plastic which is in the ocean but also the amount which exists on the planet. Thus, it is estimated that the amount of plastic which has been produced is 8.3 billion tonnes. For comparison, the amount of iron which exists in the world is estimated to be 230 billion tonnes so we can see that the amount of plastic existing on the planet is about 4% of the amount of iron. But this is based on weight – whereas plastic is considerably less dense than iron. Consequently, if we consider the volume, then the volume of plastic which exists on the planet is about 25% of the volume of iron. Currently there are about 300 million tonnes of plastic being produced each year, so this volume continues to increase. Given that plastic items can take up to 1,000 years to decompose in landfills, then we can see the size of the problem. However, it must be recognised that the plastic bags we use in our everyday life take 10–20 years to decompose, while plastic bottles take 450 years. In other words, the problem with plastic extends well beyond the single-use plastic which is the greatest cause of concern.

With these arguments in mind, it is certainly opposing to consider plastic in the current environment and this book is intended to do so. In doing so, of course it is important to remember all the arguments, that is, plastic can be either good or bad depending upon the circumstances and how it is used (Crowther, 2019). We must also remember that when plastic is not used, then an alternative must be used and so often, whether plastic is good or bad, must depend upon the

alternatives which can be used. We must also remember that much plastic can be recycled and reused and that it is human behaviour which means that this is not always happening. In other words, any assessment of the social responsibility is really an assessment of the social responsibility of us and our society, as Crowther suggests in the final chapter. Nevertheless, there are many issues which need to be addressed and many actions which can be taken. The chapters in this book illustrate this lucidly. It is also important to recognise that biodegradable plastic exists (Flurry & Narayan, 2021; Mostafa et al., 2018), and its use is a choice which is made, often in the search for economic benefit – even though such benefit might be short term and at the expense of our future. These arguments continue to run and here we make a contribution.

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