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STAKEHOLDER MODELS, SUSTAINABILITY AND THE ETHICS OF PLANNED OBSOLESCENCE

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A Research Report submitted to the Faculty of Humanities, University of the Witwatersrand, Johannesburg**,** in partial fulfillment of the requirements for the **degree of Masters of Arts, Applied Ethics for professionals**

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DECLARATION

I declare that this research report is my own unaided work. It is submitted for the degree of Master of Arts, Applied Ethics for Professionals, in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any other degree or examination in any other university.



Joanne Matisonn

29 day of July 2016

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TABLE OF CONTENTS

DECLARATION iii
ACKNOWLEDGEMENTS iv
1. INTRODUCTION 1
2. MEANING OF PLANNED OBSOLESCENCE AND ITS DIFFERENT KINDS 3
3. BENEFICENCE, LIBERTY, INDIVIDUALS AND CORPORATIONS 4
3.1 The principle of beneficence 4
3.2 The limits of personal liberty 8
4. THE DEBATE BETWEEN SHAREHOLDER AND STAKEHOLDER MODELS 10
4.1 Shareholders' Model 11
4.2 Stakeholder Analysis and Synthesis 12
4.3 The Inclusive Stakeholder Model 17
5. BENEFICENCE, PLANNED OBSOLESCENCE AND ETHICAL LEADERSHIP 20
6. PLANNED OBSOLESCENCE, ENVIRONMENTAL SUSTAINABILITY, ETHICAL LEADERSHIP, AND BENEFICENCE 32
6.1 Creative Destruction 32
6.2 Technological Obsolescence 36
6.3 Limited Functional Life Design 39
6.4 Design for Limited Repair 43
6.5 Design Changes that lead to Reduced Psychological Satisfaction 43
6.6 Design for Functional Enhancement through Adding or Upgrading Product Features 48
6.7 Design for Fashion 51
7. PLANNED OBSOLESCENCE AND SOME PROBLEMS 54
7.1 The Problem of Environmental Degradation 54
7.2 The Problem of Technological Obsolescence 62
7.3 The Problem of Employment Obsolescence 64
7.4 The Problem of Conspicuous Consumption 64
8. PLANNED OBSOLESCENCE, SUSTAINABILITY AND THE WAY FORWARD 65
9. SOME OBJECTIONS AND RESPONSES 73
10. CONCLUSION 76
REFERENCES 77

1. INTRODUCTION

Business is driven primarily by a profit motive. This has consequences, both good and bad. On the positive side, it creates shareholder wealth, provides jobs to enable people to live beyond survival mode, spend and pursue a life of well-being. On the negative side, it may lead to environmental degradation, job losses and adopting negative values such as conspicuous consumption, which raises ethical issues.

In this research report I will be investigating whether companies have an obligation to shareholders or a wider group of stakeholders. If they have an obligation to a wider group of stakeholders, then the question is whether planned obsolescence is an ethical practice that should inform their business and what the role is of ethical leaders in addressing problems such as job losses, environmental damage and conspicuous consumption that result from planned obsolescence.

As part of my attempt to answer the research question I will discuss views regarding business and the profit motive flowing from, *inter alia,* Adam Smith and Milton Friedman. I will juxtapose these with more recent standpoints of the multi-fiduciary model, the enlightened shareholder approach and the inclusive stakeholder approach. I will then focus on planned obsolescence as a pervasive business practice and discuss whether the different types of planned obsolescence can be morally justified given their negative consequences of over-consumption of finite resources, environmental damage, the sustainability of business, jobs and the planet and the ethics of conspicuous consumption. These issues are explored with reference to the positive effects of stimulating the economy, promoting innovation and entrepreneurship.

Finally, I will propose ethical solutions to the issues raised around planned obsolescence. This is not only aimed at achieving specific benefits but also limiting the negativity introduced by planned obsolescence. This may require some tradeoffs between different values. The solutions lie in a holistic analysis of the whole product life cycle and for business to take responsibility for the consequences of each phase, whether intentional or otherwise. This entails weighing up the benefits against new problems that may arise such as extending product life spans, which may require the use of less environmentally-friendly products, against increased prices and the loss

of certain categories of jobs. Consumer behaviour also needs to change from over consumption to slow consumption to preserve finite resources. This requires adopting different marketing strategies and more information being made available to consumers to enable them to make responsible choices. Companies and consumers are dependent on one another and need to work together to find satisfactory solutions for all stakeholders impacted by their activities.

The thesis that I defend in this research is that planned obsolescence which relates to functional enhancement or upgrading of features is legitimate insofar as progress entails searching for new, more efficient, innovative ways of doing things. I also do consider as legitimate planned obsolescence that involves using cheap materials and parts provided that these details are disclosed to consumers to enable them to make an informed decision as to whether a specific purchase is value for money in their particular circumstances.

However, I reject some categories of planned obsolescence. Firstly, planned obsolescence that promotes monopolies or locks consumers into certain products, or limit their choice and disempower them is problematic. I also consider problematic planned obsolescence that involves designing for limited repair. This type of planned obsolescence favours the manufacturer entirely at the expense of the consumer, depriving him or her of any informed choice and forcing him or her to purchase new products, which adds to environmental waste burden and incurs unnecessary costs. Thirdly, planned obsolescence that promotes purchases that are designed to lead to reduced psychological satisfaction is to be rejected. However, human nature is such that it would be unrealistic to assume that it would be possible to do away with this kind of planned obsolescence. People are creative and it does not seem rational to suppress creativity and innovation.

This is how I will proceed in my research. In section 2, I will discuss the meaning of planned obsolescence and its different kinds. This will be followed by a discussion of beneficence, liberty, individuals and corporations in section 3. In section 4, I will examine shareholder and stakeholder models and in section 5, I will look at why a limited form of beneficence is a moral obligation for business. In section 6, I will discuss the different types of planned obsolescence outlined in section 2, the impact on environmental sustainability, the responsibility of ethical leadership and the

principle of beneficence. Section 7 will focus on some of the problems that arise from strategies of planned obsolescence. In section 8, I focus on the way forward in regard to planned obsolescence practices. This is followed by section 9 which addresses some of the objections to my arguments. The last section (10) sums up my research.

2. MEANING OF PLANNED OBSOLESCENCE AND ITS DIFFERENT KINDS

In this section, I provide a brief definition of planned obsolescence. Following the definition, I outline the different kinds of planned obsolescence. I do not discuss in this section the categorisation of planned obsolescence but discuss them in section 6 and show how they are connected to issues of environmental sustainability, ethical leadership, and the principle of beneficence.

According to Bulow[1], planned obsolescence 'is the production of goods with uneconomically short-useful lives so that customers will have to make repeat purchases. There are several categories of planned obsolescence[2], which I outline here[3].

(a) Technological obsolescence: This is where the change is so significant that it renders existing skills and expertise obsolete such as the change from typewriters to computers or the mechanisation of previously manual jobs such as bank tellers moving mainly to ATMs and machines that pack products previously done by people.

(b) Limited functional life span: This is where the manufacturer uses cheap parts so that the consumer is obliged to prematurely replace the same product due to rapid loss of utility. In these instances, there is no possibility of repair. This applies to items such as pantyhose, toothbrushes and disposable cameras. It also includes appliances designed to last for approximately three years or less, also known as 'death dating'.

[1] J. Bulow, 'An Economic Theory of Planned Obsolescence', *Quarterly Journal of Economics,* 1996 vol. 101 no 4, p 729.
[2] J. Guiltinan, 'Creative Destruction and Destructive Creation: Environmental Ethics and Planned Obsolescence' *Journal of Business Ethics,* 2009, p 20, 10.1007/s10551-008-9907-9.
[3] In outlining and discussing the different categories of planned obsolescence I will be relying heavily on Guiltinan's categorisation of planned obsolescence That is, to a large extent, I will be following most of Guiltinan's naming of the different categories.

(c) Design for limited repair: In these instances, the cost of repair, particularly for consumer electronics is so close to the price of a new product, that it encourages disposal.

(d) Design changes that lead to reduced psychological satisfaction: Aesthetic characteristics can influence premature disposal. An example would be a change from the old box style TV to a flat TV screen.

(e) Design for functional enhancement through adding or upgrading product features: In these instances, the manufacturer changes the design, with minor enhancements. This applies to products such as computers, printers, cellphones and motor vehicles. This immediately devalues the older model and the new model is invariably more expensive. In addition, the manufacturer often stops servicing older models and/or no longer manufactures the parts. In this case, even if the consumer does not support conspicuous consumption, does not particularly want to purchase a new product and the item in question is in reasonable working order, he is forced to purchase a new, more expensive model.

(f) Design for fashion: The fashion industry promotes new designs every season, mainly for aesthetic reasons, so that consumers will feel obliged to buy more clothes and in many cases throw out last season's clothing to keep up-to-date and feel fashionable even though last season's clothing may still be perfectly functional. The consumer supports the process with an ever-increasing desire for something new and a 'fresh' look. Advertising also promotes a 'certain look' associated with an aspirational lifestyle to encourage frequent purchases.

3. BENEFICENCE, LIBERTY, INDIVIDUALS AND CORPORATIONS

Sustainability and the ethics of planned obsolescence touch on the issues of beneficence, whether it is an obligation (limited or universal) as well as a liberty. In this section, I discuss these issues in the context of individual and corporate actions.

3.1 The principle of beneficence

The principle of beneficence refers to 'a moral obligation to act for the others' benefit, helping them to further their important and legitimate interests, often by preventing or

removing possible harms'[4]. This definition implies that business has an obligation to a wide stakeholder group and cannot act only in the interests of its shareholders. An obligation to prevent harm means that business needs to consider possible job losses and environmental degradation and do whatever is in its power to minimise these consequences emanating from planned obsolescence strategies. Moral theories of beneficence endeavour to differentiate between what is obligatory and what actions exceed duty, known as supererogatory. Actions of beneficence also endeavour to identify supererogatory actions of beneficence, which are those actions that exceed obligations and demonstrate a virtuous character. An example of this category would be anonymous gift giving or going above and beyond duty when one helps others. Such acts may be every day events that indicate a strong moral character such as giving a stranger a lift home to a place which is out of your way to more demanding acts of self-sacrifice that benefit others.

David Hume provides a good analysis of the motivation for benevolence[5]. His main argument is that benevolence is intrinsic to human nature, which manifests itself in every day actions such as the need to develop friendships and demonstrating spontaneous compassion. Hume's theory is close to Utilitarianism as it is based on usefulness and what is in humans' best interests to make them happy. His ethical approach is based on passion rather than reason. He acknowledges that there are many motivations for benevolence, some admirable and some not so admirable. Hume also adds self-love as one of the motivations for benevolence but argues that this is separate from benevolence as self-love only takes the interest of the individual into account whereas benevolence includes public interest.

Utilitarian theories focus on the 'greatest happiness' principle. Mill[6] and other Utilitarians argue that actions are right if they produce the greatest amount of happiness for the greatest number of people and minimise harm for the greatest number of people compared to all the alternatives in a given set of circumstances. The positive impact on the welfare of the majority of affected stakeholders must outweigh the negative impact to determine whether an action is right[7].

[4] Hume (as cited in Beauchamp, 2013), 'The Principle of Beneficence in Applied Ethics, 1. The Concepts of Beneficence and Benevolence', first published (Wed Jan 2, 2008: substantive revision Thu Oct 3, 2013), Stanford Encyclopedia of Philosophy, http://plato.stanford.edu/entries/principle-beneficence/.
[5] Ibid.
[6] Mill (as cited in Beauchamp, 2013). Ibid.
[7] Ibid.

Kant's theory is that a principle must be universalisable to be valid[8]. He regards beneficence as a universalisable duty. For Kant, the motive is important and is based on duty as opposed to a Utilitarian framework of consequences. Kant argues that everyone has a duty to be beneficent within their means and without expectation of personal gain[9]. His theory does not clarify the limit of the duty other than to say that it is not unlimited. From a Kantian perspective, ethical leaders would be obligated to ensure that their planned obsolescence activities do not negatively impact job losses and sustainability. Weighing up the extent of their duty would mean that ethical leaders would need to apply reason to the specific situation. Achieving a universal framework of ethical values with a common understanding of their interpretation would be difficult, if not impossible.

Other philosophers argue that there is no general obligation of beneficence and that beneficence is a 'commendable moral ideal'[10]. Gert falls into this category and he argues that moral rules require people to act rationally at all times with the aim of not causing harm. He argues that this does not extend to promoting good for the greatest number of people at all times. Professional roles and other roles may impose additional duties only on those persons who have chosen to take on such roles. Persons who carry out those duties who are not required to do so demonstrate moral ideals as such obligations are restricted to specific roles. Thus, for Gert, duties are role-specific as opposed to Kant who maintained that moral duties are universal, although both are premised on using reasoning. This perspective would only require business to consider limiting the negative impact of its planned obsolescence activities on its stakeholders.

Moral philosophy distinguishes between preventing harm, which falls under the heading of 'rules of non-maleficence' and 'rules of beneficence', which require positive action such as endeavouring to rescue a stranger where it involves minimal risk to yourself. The obligation to take a positive action is aimed at preventing the

[8] Kant (as cited in Beauchamp. 2013). Ibid.
[9] T. Beauchamp, Stanford Encyclopedia of Philosophy, 'The principle of Beneficence in Applied Ethics', 2013..
[10] Singer (as cited in Beauchamp 2013), Stanford Encyclopedia of Philosophy, 'The Principle of Beneficence in Applied Ethics, 3. Is Beneficence Obligatory or Merely a Moral Ideal?' http://plato.stanford.edu/archives/win2013/entries/principle-beneficence/.

loss of a 'basic interest' to the other person whilst not causing a major risk, cost or burden to the person trying to help[11].

Philosophers still debate the limits of beneficence. There are extreme views such as Peter Singer who originally argued that 'persons in affluent nations are morally obliged to prevent something bad or evil from happening if it is in their power to do so without having to sacrifice anything of comparable importance'[12]. Singer does not define what 'comparable importance' is. Although Singer focuses this obligation on the individual there is no reason why it cannot be applied to governments and corporations. The general interpretation is that one is required not to spend resources on non-essential items but rather use them to assist those in urgent need. This would exclude allocating resources to conspicuous consumption, fashion and luxury items. However, what is non-essential to one person may be very essential to another. Criticisms of this theory have been that this is impractical and too extreme.

Singer subsequently revised his theory to a lower standard of beneficence and determined that a percentage of income should be allocated to donations and should be higher than tokenism but not so high as to be unrealistic and unlikely to be implementable. This is a subjective test as the benchmark for tokenism would vary from person to person, based on what they regard as essential for their wellbeing. Singer argues that social conditions would motivate people to give, rather than determining a specific percentage based on obligation. In practice, some people are motivated to respond to poor social conditions, but this is not a universal response.

The above debate centres on whether beneficence is an obligation or not and if so, what the limits of beneficence are. This directly impacts the first part of my research question as to whether companies have an obligation only to make profits for shareholders or whether they have a broader moral obligation or duty to ensure business and environmental sustainability which may be compromised as a result of their planned obsolescence activities.

[11] Ibid.
[12] Ibid.

3.2 The limits of personal liberty

The next relevant debate as it relates to beneficence in the context of individual behaviour in particular and corporate activities in general are whether beneficence interferes with a person's personal autonomy as explored by Mill[13]. Mill explores the extent to which outside influences and the law impose limits on a person's preferences, thoughts and behaviour and thus limit a person's personal autonomy.

Mill argues that the only justifiable reason to limit an individual's personal autonomy is 'the harm principle'. This does not extend to another person who does not wish to receive the benefit. This means that where one person believes that he has the best interest of another at heart and acts accordingly, despite the objection of the person who will benefit, this would not be acceptable in terms of the harm principle even if it would prevent harm.

Other philosophers have criticised Mill for excluding all forms of paternalism. The suggestion has been made that paternalism may be justified where the harm that can be prevented is great in relation to minor infringements on a person's personal autonomy. Conversely, preventing minor harms or providing a minor benefit to a person which infringes significantly on a person's autonomy would not be justified. There seems to be consensus that paternalism can be justified if the following three criteria are met: (a) the person is at risk of a significant and preventable harm or loss of a benefit; (b) there is a strong likelihood of preventing harm or achieving the benefit; and (c) action with the least interference in personal autonomy is taken.

The paternalistic debate is used to determine matters of public policy that will benefit the segment of the population that may be affected by the risk of harm. The relevance of this in respect of planned obsolescence is whether government has a responsibility to enact legislation that limits or eliminates environmental harm caused by planned obsolescence practices such as ever-increasing quantities of e-waste. It also impacts whether government should or is obligated to enact legislation enabling it to restrict job losses or coerce companies to provide alternative employment opportunities resulting from technological obsolescence. The question this raises for business is whether this would constitute legitimate interference in business

[13] Mill (as cited in Beauchamp. 2013). Stanford Encyclopedia of Philosophy, '5. Liberty-Limiting Beneficence: The Problem of Benefit Paternalism'.

practices. If so, it would indicate that business has a responsibility that goes beyond making profits.

Smith[14] argues that societies are bound together by social, political and economic trade, but primarily the exchange of goods which increases the wealth of nations and leads to a sense of well-being. This means a certain commonality between societies to enable them to benefit from one another.Smith argues further that commercial transactions are only successful if a person can see a personal advantage. Markets operate on self-interest. The main point of Smith's argument is that justice is a fundamental principle of a society but beneficence is not a moral duty. It is always right to act with beneficence and the standard is to put oneself in the position of an impartial spectator. If the impartial spectator would empathise with the emotions motivating the act, then it is right. The gratitude of the recipient or the good feeling it engenders in the giver is its own reward. However, this is an imperfect duty i.e. it is not a moral duty to act with beneficence towards specific people in specific circumstances but it is a component of a flourishing society[15].

On this principle of beneficence and in the context of our discussion of limited liberty, planned obsolescence could only be phased out or stopped if it can be shown that the benefit to the planet and other stakeholders also enhances the company's profit and that in the long-term, the benefit to the company would be greater than focusing on short-term profits. An example would be if the workers at a factory lived far away and there was no public transport. Walking to and from work would entail two hours a day which would leave workers tired and not optimally productive. If management provided transport to and from work for the workers, it would be acting beneficently and would improve worker productivity which would benefit the company[16].

The debate around corporate beneficence indicates that generally corporate social investment programmes that companies implement to benefit communities also have a self-interest component e.g. an engineering company may offer bursaries to aspiring engineers or participate in fixing and repairing a community centre may

[14] Smith (as cited in Beauchamp, 2013). Stanford Encyclopedia of Philosophy, 'The Principle of Beneficence in Applied Ethics, 7. Beneficence in Business Ethics', Stanford Encyclopedia of Philosophy. http://plato.standford.edu/archives/win2013/entries/principle-beneficence/.

[15] A Smith, 'Justice and Beneficence', 1759. http://www.libertarianism.org/publications/essays/justice-benefience).

[16] I have used the word 'company' throughout this research report which covers all forms of business organisations.

result in more customers for a company selling DIY products and enhance its brand for future customers. Friedman argues that social responsibilities are separate and not within the expertise of business[17]. Business cannot have responsibilities, only people can. Corporate executives are employed by shareholders and hence are required to carry out their instructions, which include maximising their wealth. If a person takes on social responsibilities in his or her personal capacity, that is admirable but it is separate from business. Friedman further argues that the corporate executive who allocates company money for social objectives is acting against the best interests of the shareholders and is spending someone else's money without authority. Friedman regards this as a tax on the shareholders. He argues that management cannot unilaterally decide how shareholders' money should be spent. Social problems are the responsibility of government, not business. On this argument, planned obsolescence, which generates increased sales, would be a legitimate strategy to make profits. Unravelling motivations are complex but if there are sufficient grounds to believe that the main motivation for such acts of corporate beneficence are motivated by self-interest, then it would not necessarily contradict Friedman's argument that the business of a company is to exclusively pursue profits for shareholders within the law and ethical custom. On this view, corporate social investment activities would be regarded more as marketing strategies to increase sales and secure future customers through generating goodwill. This would be an indirect way of maximising shareholder wealth.

4. THE DEBATE BETWEEN SHAREHOLDER AND STAKEHOLDER MODELS

The shareholder model places the interests of shareholders above any other stakeholders and regards the objective of a company to be solely to create wealth for shareholders. In contrast, a stakeholder model is company-centric and takes into account the legitimate interests and expectations of others insofar as they advance the interests and objectives of the company. The shareholder model would support planned obsolescence as being a legitimate strategy to increase shareholder wealth whereas a stakeholder model would consider the effects of planned obsolescence on sustainability. In order to justify planned obsolescence, the stakeholder model would require that the harmful consequences of planned obsolescence such as

[17] M. Friedman, 'The Social Responsibility of Business is to increase its Profits, Part One, Ethical Theories and Approaches', 1970. pp 225-229.

environmental degradation and depletion of finite resources be addressed. If the negative consequences of planned obsolescence outweigh the benefits, on this model, planned obsolescence would not be a legitimate strategy to follow.

By not focusing on sustainability issues, the shareholder model has ethical limitations, as a company cannot divorce itself from the impact of its activities on society. Planned obsolescence, which would be a legitimate strategy to follow in the context of a shareholder model, ignores the negative impact on people and the planet. Stakeholder models take responsibility and accountability for the impact of their activities and accordingly look at planned obsolescence in the context of sustainability. Stakeholder models would not support planned obsolescence absolutely. In this research report, I address what types of planned obsolescence could be considered ethical, considering the impact on all stakeholders, and what strategies need to be put in place to mitigate the negative impact on sustainability issues.

4.1 Shareholders' Model

Friedman[18] argues that the purpose of business is to make profits for shareholders and that social responsibility issues are not matters that business should concern itself with. Management are employees and agents of the shareholders and accordingly must carry out their instructions. Any deviation from this would be tantamount to imposing a tax on the company for which management has no authority. Taxes are the responsibility of government and accepting social responsibility reflects a socialist view, which is at odds with the purpose of a company. Friedman admires a businessperson who in his or her personal capacity pursues a social responsibility agenda. However, he regards these as very separate from business ethics and responsibilities[19].

Friedman regards any means of pursuing increased profits as legitimate as long as it adheres to the prevailing legal framework and ethical custom. Hence, he would consider planned obsolescence as a legitimate strategy for increasing profits irrespective of its negative consequences for sustainability of people and the planet.

[18] Ibid.
[19] M. Friedman, Op cit.

4.2 Stakeholder Analysis and Synthesis

More recent views that consider that companies have responsibilities and obligations that extend beyond generating profits for shareholders are the stakeholder analysis and synthesis model, the multi-fiduciary stakeholder model and the inclusive stakeholder model, all of which reflect a shift in ethical values. The shift in ethical values is a result of the connection between many socio-economic and political forces.

Goodpaster provides an indication of how to think of the stakeholder analysis and synthesis model in his definition of ethically responsible management, which he takes to be '…management that includes careful attention not only to stockholders *but to stakeholders generally* in the decision-making process'[20]. He takes a stakeholder as 'any group or individual who can affect or is affected by the achievement of the organisation's objectives'[21]. This includes employees, competitors, government and other regulatory bodies, customers, suppliers and local communities. Goodpaster illustrates the stakeholder model with reference to the Poletown case that took place in Detroit in 1980. In summary, General Motors was in financial difficulty and had a choice of either investing capital expenditure for a assembly plant at a substantially higher cost in Detroit, the area of its established manufacturing plant, which would save existing jobs, or developing a greenfield site in Poletown at a much lower cost which would result in significant job losses. General Motors did consider these factors and decided to establish a new plant in Poletown, resulting in job losses and the relocation of approximately 3 500 people to enable the plant to be built. This example only covers stakeholder analysis.

Goodpaster distinguishes between stakeholder analysis and stakeholder synthesis. The key difference is that stakeholder analysis does not incorporate ethical values into its decision-making model whereas stakeholder synthesis may do so. This may not necessarily have resulted in a different decision but stakeholder synthesis has several more components before reaching a decision and it can be argued is a more robust process to reach a rational decision.

[20] K. E. Goodpaster, 'Business Ethics and Stakeholder Analysis' from *Business Ethics Quarterly 1, 1991,* no. 1, pp 53-73.
[21] Ibid. p 205.

The general idea is that stakeholder analysis is insufficient as it only encompasses fact gathering and the analysis of the positive and negative implications of these facts on affected parties in relation to the company's objectives, responsibilities and values. This approach does not address the ethical values of a company and is morally neutral. Goodpaster describes stakeholder synthesis as processing the information obtained during the analysis phase, choosing between different alternatives and implementing the decisions by taking into account the moral values of the company.

Stakeholder synthesis requires an evaluation of each option before making a decision. It does not necessarily follow that the evaluation will be based on moral reasons. The evaluation may be benchmarked against possible political repercussions, a desire to avoid litigation costs or a fear of retaliation that may damage the company's brand. The impact on families due to the loss of income and the results of an environmental impact assessment may or may not be a consideration.

Stakeholder analysis may entail an instrumental analysis on each stakeholder group. This would focus on how the shareholders' goal of maximising profits would impact each indirect and direct stakeholder group with a legitimate interest in the decision to be made, but the paramount consideration would be the interests of the shareholders. The central consideration may well be whether the decision will impact future sources of income for the shareholders. Thus, other stakeholders are treated as a means to an end. Management may be sympathetic to the plight of workers potentially losing their jobs but this concern would be subordinated to the overarching goal of maximising shareholder value. A conservative approach would see Smith's concept of the invisible hand guiding a successful outcome in a competitive economy. A more liberal approach would see legislation as providing the guidance required to protect other stakeholders, particularly vulnerable stakeholders such as employees who may not have many or possibly any options for alternative employment. According to Goodpaster, both approaches see the interests of the shareholders as taking precedence over other stakeholders. Other stakeholders are instrumental in achieving the shareholders' objectives. Both see the legal and regulatory framework as providing a voice for other stakeholders but differ in regard

to how much government regulation is socially and economically desirable[22]. From the shareholders' point of view, other stakeholders are seen in the context of actual or potential obstacles to the company achieving its objectives which are defined as maximising the benefits and minimising the costs, both in the short-term and long-term, for the benefit of the shareholders.

Goodpaster argues that this approach is not immoral. It is non-moral. Moral concern would take into account the unfairness of the situation. An alternative response is that a strategic decision in an effective legal and regulatory environment does not necessarily result in the interests of the shareholders superseding the interests of other stakeholders. Friedman would argue that concern for stakeholders other than the best interests of the shareholders is 'redundant, and inefficient, not to mention dishonest'[23]. From an ethical point of view, the concern raised here is that the move from stakeholder analysis to stakeholder synthesis does not necessarily result in a more ethical outcome as the shareholders' concerns supersede other stakeholders who are treated instrumentally, i.e. the positive and negative implications on them are considered only in the context of their impact on the shareholders. This is also termed the enlightened shareholder model and is the approach followed in America.[24]

Goodpaster proposed an alternate model, which he termed the multi-fiduciary stakeholder synthesis model[25]. The general idea of this model is that the interests of each stakeholder group that will be impacted by the decision made should be treated with the same concern as the economic interests of shareholders. This requires a mind shift whereby executive directors/management move from acting in the best interests of shareholders to acting in the best interests of all stakeholders who have a direct or indirect interest in the future of the company. There is a possibility that the adoption of the multi-fiduciary stakeholder synthesis approach by a company for ethical reasons may result in decisions that are not within the prevailing legal framework in place which adds another layer of complexity to the decision-making process but is beyond the scope of this research report. The multi-fiduciary

[22] Ibid. p 210.
[23] Ibid. p 211.
[24] G. Jackson, 'Understanding Corporate Governance in the United States',. *An Historical and Theoretical Reassesment,* Hans-Böckler-Stiftung, Mitbestimmungs-, Forschungs-und Studienförderungswerk des DGB, Dusseldorf, 2010, p 223.
[25] K. E. Goodpaster, 'Business Ethics and Stakeholder Analysis', from *Business Ethics Quarterly* 1**,** §991, no. 1, p 212.

stakeholder synthesis model moves from the stakeholder analysis and synthesis approach of treating all stakeholders instrumentally in relation to the shareholders to taking into account the interests of all affected parties on an equal basis. This entails management making a fundamental shift from being the custodian of the interests of shareholders to being required to exercise ethical leadership for a wide range of stakeholders[26]. It also does not take into account the level of risk taken by the providers of capital.

In the multi-fiduciary stakeholder synthesis approach, General Motors' management would have identified the same stakeholders in the Poletown case as in the stakeholder analysis and synthesis approach but would have considered the interests of employees, the city of Detroit and the Poletown residents together with the interests of the shareholders and given all their interests equal consideration. The decision at the end of the process may or may not have been the same but the process would have entailed an ethical dimension and it could be argued would be a more robust interrogation of the situation.

One of the objections that Goodpaster raised against this approach has to do with the widely held moral view that obligations of an agent to a principal are stronger and different from those of agents to third parties[27]. Corporate activities that take wider stakeholder interests into consideration may not have profit maximisation as an objective but their activities may still be consistent with profit maximisation in that profit maximisation may be a secondary benefit or the company may benefit in a different economic way. On the other hand, management serving the needs of public organisations without a corporate benefit, weakens the influence of the shareholders on their own company and creates obligations for public participation in corporate management[28]. This would change the current capitalist model as we know it and result in the shareholders losing influence and control over their own company.

Goodpaster's analysis indicates that pursuing corporate self-interest, both short-term and long-term, may not result in ethical decisions. This raises the question as to whether economic outcomes should supersede other outcomes such as social and

[26] Ibid. p 213.
[27] Ibid.
[28] Ruder (as cited in Goodpaster, 1991). Ibid., p 214.

environmental issues from a company's perspective. If not, the question can be asked whether there is a risk of a private company becoming a public benefit organisation.

Ruder, a former chairman of the Securities and Exchange Commission, comments that younger people are more attracted to companies that have good social and business records and that ethical decisions should be made primarily because it is the right thing to do[29]. This indicates a societal shift in ethical values from Friedman's approach of exclusive profit maximisation.

Goodpaster notes that the limitations of the multi-fiduciary stakeholder approach of treating all stakeholders equally makes them "quasi-stockholders" which leads to paralysis due to competing interests that are channeled in different directions. However, he believes that the problem can be addressed by introducing appropriate legislation that redirects directors' fiduciary duties to the corporation rather than to shareholders. This would enable directors to take into account the interests of all legitimate stakeholders without turning a private company into a public company. This would prevent directors from having a fiduciary duty to all stakeholders and keep it restricted to shareholders. Their duty to other stakeholders would be non-fiduciary, thus clearly distinguishing the nature of the different interests of stakeholders.

Furthermore, Goodpaster argues that business ethics enables directors to have morally significant non-fiduciary obligations to third parties that are designed also to meet the best interests of the company. He uses as his starting point universal obligations such as a duty not to lie or steal. These are duties that apply to all juristic persons and individuals. The idea here is that directors/management must behave ethically in the same way that they would behave towards themselves. This entails seeing the company as a moral extension of the conscience of its shareholders. Actions would be based on moral reasons. This is not the same as the multi-fiduciary stakeholder reasoning in that the multi-fiduciary approach fails to distinguish the nature of the different relationships between the company and its shareholders and the company and other relevant stakeholders and would be difficult to implement on a practical level. Nonetheless, he believes that the management at General

[29] Ibid. p 215.

Motors owed the Detroit community a creative solution to a very serious problem and should not have used them as a means to an end for the exclusive benefit of the shareholders.

The model that Goodpaster proposed is premised on acknowledging that relationships with both shareholders and other stakeholders are important. However, companies do not have the making of short-term profits as their sole obligation and are obliged to take into account moral criteria in their stewardship of a company. Compliance with the law is not sufficient as there are many decisions that have moral implications that are not encapsulated by the law. Thus, Goodpaster shifts the debate to the inclusive stakeholder model without naming it as such.

4.3 The Inclusive Stakeholder Model

Willard argues against Friedman's view that the purpose of business is only to make profits within the constraints of the law and ethical custom is not sufficient[30] as the law does not always deal with morality. More actions are impacted by morality than law. In addition, the law may be immoral or the law may not provide adequate sanctions against harm and injustice that people inflict on others and the environment. Support for Willard's theory would require proactive steps to prevent job losses and environmental damage taking into account ethical considerations.

The key to overturning the profit-motive as the sole driver to satisfy shareholders is to prove that sustainability strategies are smart business strategies. This can be achieved through adopting the inclusive stakeholder approach. Willard states that continuous growth is not sustainable as the earth has finite resources. Whilst nature regenerates itself, current levels of consumption exceed the ability of the earth to regenerate itself[31]. Economic growth has not led to full employment, eliminated poverty or extended the longevity of the planet. Continuous growth requires ongoing increased consumption, which is not sustainable. Willard argues that companies need to adopt strategies that respect the environment and the communities in which they operate and focus on the ongoing sustainability of business. This means moving from a profit motive to a "values-based corporate citizenship" approach[32].

[30] L. D. Willard, 'Is Action within the Law Morally Sufficient in Business?', *Contemporary issues in Biomedicine, Ethics and Society,* 1993, pp 89-99.
[31] B. Willard,' T*he New Sustainability Advantage*', British Columbia, New Society Publishers, 2012.
[32] Ibid.

In both the enlightened shareholder model and the inclusive stakeholder model, the legitimate interests and expectations of stakeholders, other than shareholders, are taken into account. The point of departure is that in the enlightened shareholder approach, stakeholder interests and expectations are considered in relation to and as subservient to the best interests of the shareholders. The interests and expectations of stakeholders other than shareholders are limited to their instrumental value to the shareholders. Hence, Friedman's argument that the purpose of business is to exclusively make profits for shareholders would still apply as a primary consideration. In the inclusive stakeholder approach, the shift is from the primary focus being the best interests of the shareholders to the best interests of the company. In reaching decisions, tradeoffs generally have to be made between competing interests to decide what would be the best interests of the company. The interests and expectations of the shareholders would not necessarily take precedence over those of other stakeholders and would need to be evaluated on a case by case basis. According to the King Report on Corporate Governance 2009 (King III), the best interests of the company would be measured against what constitutes a sustainable company within the context of the company acting as a responsible corporate citizen[33].

King III has become the accepted approach to doing business in South Africa and in many parts of the Western World. It applies to listed companies, state-owned companies and other companies with a public interest score of 500 or more as defined in Regulation 266(2)(a)-(d) of the Companies Act 71 of 2008 (the Act)[34]. This is further encapsulated in the Act under Section 7, 'Purposes of Act' [35]. In this section, the vision for company law includes, *inter alia,* the development of the economy by encouraging entrepreneurship, innovation and high standards of corporate governance. Part of the implementation of this vision includes promoting compliance with the South African Constitution, particularly, the Bill of Rights, making companies responsible for both economic and social benefits and promoting South Africa as an economic partner in the global economy in addition to providing a credible legal framework to conduct corporate activities.

[33] Institute of Directors Southern Africa, *King Report on Governance for South Africa 2009,* Johannesburg. IODSA, 2009, p 13.
[34] This is an act passed by the South African Parliament.
[35] P. Delport, *Henochsberg on the Companies Act 71 of 2008*, Durban, Lexis Nexis, 2012.

A further departure from Friedman's view that directors are agents of shareholders is found in section 66 of the Act that gives the directors of companies' sole power to manage the affairs of the company. This is original power, not power derived from shareholders as existed in the 1973 Companies Act. This is a major shift in the approach to company law in South Africa. The implications of this shift are that directors must act in the best interests of the company, not shareholders, which is contrary to Friedman's view. The best interests of the company will include taking into account the legitimate interests of all its stakeholders in the context of the best interests of the company. Further credence for the inclusive stakeholder approach is that the Johannesburg Stock Exchange Limited obliges listed companies to comply and report on their compliance with certain provisions of King III[36]. In addition, companies are required to report on how they applied all 75 principles of King III on their website annually. Where they have not applied King III, listed companies are required to provide a plausible explanation. This disclosure enables investors and other interested parties to engage with the company if they are not comfortable with the explanation.

Whilst there is no written connection between King III and Kant's business firm as a moral community, there is no doubt that intentionally or unintentionally, the moral concepts of an inclusive stakeholder approach originate from Kant's idea that companies comprise individuals and the categorical imperative requires organisational structures to treat all those individuals with dignity and respect[37]. The rules in the company must apply to everyone and be accepted by all employees. The rules should be reached and agreed to through rational thinking such that each person would find them acceptable as the maker of the rules and the subject of the rules. Kant specifically endorsed a process of involving all interested stakeholders in the decision making process without one stakeholder automatically taking precedence over another[38]. This is a strong endorsement of the inclusive stakeholder model and a rejection of Friedman's argument that the purpose of business is solely to make profits for shareholders.

[36] Johannesburg Stock Exchange Limited. 'JSE Listings Requirements', *Service Issue 19*, Durban, Lexis Nexis, 2015, Paragraph 3.84 pp 52-53.
[37] N. E. Bowie, 'A Kantian Approach to Business Ethics', in Robert Frederick, (ed). *A Companion to Business Ethics*, Oxford: Blackwell Publishers. 1999.
[38] Ibid.

The inclusive stakeholder approach further endorses and builds upon Kant's first two maxims of the categorical imperative, the first being that you must act only on maxims that you can will to be universal laws of nature. By taking into account the interests of all stakeholders, a company and its ethical leaders are treating their stakeholders as they would like to be treated. Stakeholder needs are taken seriously and steps taken to meet them. There is no reason that this could not be applied as a universal principle.

The second formulation of always treating the humanity in a person as an end and never as a mere means, builds on the first maxim and is a rejection of the Utilitarian approaches discussed earlier in this research report. A company that has a consultative approach treats the humanity in a person as an end and not as a mere means. This does not preclude a commercial transaction that is mutually beneficial to both parties. Kant draws a distinction between negative freedom and positive freedom, both of which apply to this maxim. Negative freedom entails no coercion or deception. However, this constraint is not sufficient on its own and requires positive freedom as well to fulfill the maxim. Positive freedom allows each individual the freedom to develop his or her human capacities, which consist of both rational and moral capacities. Commercial transactions must be performed within the constraints of these negative and positive freedoms if they are to be ethical[39].

5. BENEFICENCE, PLANNED OBSOLESCENCE AND ETHICAL LEADERSHIP

Having outlined some of the main arguments around the concept of beneficence, I will substantiate why a limited form of beneficence is a moral obligation for business, focusing on it from both Utilitarian and Kantian perspectives. This is premised on the fact that the majority of shareholders of listed companies are institutions that invest a significant portion of their capital in pension funds whose ultimate beneficiaries are the general population of employed workers. This is a departure from historical trends where the major shareholders were usually family-owned and frequently the shareholders and directors were the same people. In the second half of the 20th century, more and more companies separated the powers between shareholders and directors, which became the established model for most companies. The new

[39] Ibid., pp 7-8.

class of shareholders imposed a responsibility on the directors to look after the interests of this wider group of shareholders[40]. This argument is further substantiated by the fact that the institutions looking after pension funds need to fulfill their mandates by ensuring that the companies that they invest in perform well, both in the short-term and the long-term. Thus, they have a duty as custodians of the capital of pension funds to ensure the sustainability of the companies they invest in to be able to meet the legitimate pension expectations of their beneficiaries. Further, the Act has partially codified common law fiduciary duties as well as the duties of care, skill and diligence in section 76[41]. In order to fulfill these legal duties, which are the minimum duties of directors, and to ensure the sustainability of financial markets, which in turn will meet the expectations of the ultimate shareholders, directors have both a legal and moral duty to achieve sustainable economic, social and environmental performance[42]. Legal and moral duties cannot be separated from one another as demonstrated by the concept of an Integrated Framework. This model explains how inputs from the six capitals (being units of value of a business): being financial, manufactured, intellectual, human, social and relationship and natural are transformed into outputs (products, services and waste) and the outcomes (the impact on stakeholders both positive and negative) link people, planet and profit and the whole chain needs to be viewed holistically[43]. The inclusive stakeholder approach requires decisions to be made on both a legal and an ethical basis. The shift in law from a shareholder model to a company-centric model indicates that company law in South Africa is following this moral shift to seriously consider the long-term sustainability of companies and the impact of their decisions on all their stakeholders. This model is not restricted to South Africa. Principle IV of the OECD Principles of Corporate Governance specifically states that a company's corporate governance framework 'should recognise the rights of stakeholders established by law or through mutual agreements and encourage active co-operation between corporations and stakeholders in creating wealth, jobs, and the sustainability of financially sound enterprises'.[44] Principle 3 of the ASX Corporate Governance Council states that 'A listed entity should act ethically and responsibly' and explains

[40] Institute of Directors Southern Africa, *King Report on Governance for South Africa, 2009*. Johannesburg: IODSA 2009, p 9.
[41] Parliament of South Africa. *The Companies Act. No 71 of 2008.* Pretoria: Government Printers. 2008.
[42] Institute of Directors Southern Africa. Op. cit. pp 10-11.
[43] IIRC, 2013, *The International* <<IR>> framework. www.intgratedreporting/wp/content/uploads/2013/12/13-12-08-THE-INTERNATIONAL-IR-FRAMEWORK-2-1.pdf.
[44] OECD, 2004, *Principles of Corporate Governance* http://www.oecd.org/daf/ca/corporategovernanceprinciples/31557724.pdf.

that this encompasses legal obligations, acting with integrity and responding to reasonable expectations of investors and the broader community. [45] I will deal with this in more detail later in relation to planned obsolescence.

Referring back to the definition of beneficence and the philosophical debate to distinguish between what is obligatory and what is voluntary, I refer to Hume's theory that benevolence is intrinsic to human nature[46]. This theory does not take reason into account and argues that people are by nature sociable and need to co-operate for a society to function effectively. This theory does not impose any obligation for beneficence but suggests that people have a predisposition to benevolence and a natural concern for the welfare of others, which contributes to a flourishing society.

Utilitarian theories support beneficence and having examined these theories in regard to planned obsolescence, I believe that none of them would support planned obsolescence strategies. The argument that benevolence is based on both usefulness and passion does not address the ethical issue of a planned obsolescence strategy, as the ability to judge whether planned obsolescence is ethical or not requires the application of reason. Focusing on an outcome of usefulness and what is in our best interests to make us happy does not support a strategy of planned obsolescence since beneficence requires pursuing the welfare of others whereas planned obsolescence entails pursuing the welfare and happiness of selected groups of stakeholders, being predominantly shareholders, manufacturers and retailers. Producing more goods and services will increase the wealth of these three groups, but consumers have little choice in the matter. Planned obsolescence is so pervasive that consumers who object but need certain products have no alternative. Limited or minimal disclosure on planned obsolescence does not enable consumers to make informed choices when purchasing goods. Not having defined measurements of what constitutes happiness for each stakeholder group also makes it difficult to ascertain who on balance has benefited the most. Planned obsolescence would not fit in with the concept of beneficence if it results in job losses and environmental degradation, which impacts sustainability, as these outcomes would not maximise the happiness of the greatest number of people nor minimise harm to the greatest number of people.

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[45] ASX Corporate Governance Council, 2014 *Corporate Governance Principles and* Recommendations, 3rd edn, http://www.asx.com.au/documents/asx-compliance/cgc-principles-and-recommendations-3rd-edn.pdf

[46] Hume. Op. cit.

An analysis of planned obsolescence from a Utilitarian point of view in the context of limited functional life design results in manufacturers and sellers increasing their profits and consumers being unhappy at having to make frequent replacement purchases. The question then arises whether there are more shareholders, manufacturers and sellers that are happy with the arrangement than unhappy consumers. Where the consumer is buying a disposable product that is clearly identified as disposable, the convenience and usefulness will most likely outweigh the cost of frequent replacement and an argument can be made that this meets the criteria for a limited form of beneficence. In this example, the consumer is in a position to make an informed choice whereas in many of the categories of planned obsolescence, the manufacturer's unilateral strategies and decisions are imposed on consumers.

Other categories of planned obsolescence have a different balance of power between the various stakeholders. In the category of reduced satisfaction based on psychological obsolescence, from a Utilitarian point of view, there is likely to be a greater number of happy shareholders, manufacturers, sellers and consumers which would meet the criteria of limited beneficence. However, if it increases waste and environmental degradation and accelerates the use of finite resources, this needs to be taken into account.

Although the focus of my examination of beneficence is based on Utilitarian and Kantian perspectives I want to say something briefly from a virtue ethics perspective. From a virtue ethics point of view, the above argument of planned obsolescence vis-a-vis beneficence could be said to have some limitations in the sense that it seems to encourage conspicuous consumption which detracts from building a virtuous character and leading a meaningful life.

On Kant's theory where beneficence is a universalisable duty imposed on all citizens, planned obsolescence would not be a legitimate strategy as the objective of planned obsolescence is personal gain and is usually only in the best interests of some of the role players. The general idea of Kant's imperfect duty of beneficence is premised on whether the maxim supports both the person's own moral development and the happiness of others. It strictly forbids using a person as a means to an end. The concept of beneficence cultivates goodwill which strengthens a person's moral

development, makes the ends of others one's own duty and supports the idea of an inclusive stakeholder approach. When to help and when not to help others requires the application of reason and judgment which is in line with the process of making effective, ethical business decisions.

On a Kantian account, certain acts of beneficence are obligatory, not because they fulfill the duty of mutual aid to a particularly needy person, but rather that a refusal to do so does not meet the requirement of developing a moral character [47]. Acts of beneficence in such cases are likely to generate goodwill towards the company, which may have the secondary benefit of increasing sales and profits. The central power would remain with the company to shape its future and determine the nature of the interaction with its stakeholders.

The Kantian view that all persons should be treated with dignity would not support a strategy of planned obsolescence. The extent of beneficence being obligatory from a Kantian perspective is based on the criteria that if the company does not help other stakeholders, it would reflect indifference on the company's part, which is inconsistent with developing moral perfection. Many forms of planned obsolescence focus only on generating profits and accordingly reflect a company's indifference to the needs of its wider stakeholders. I would argue that such a strategy reflects contempt for consumers and the environment.

Kant argues that asking for help changes the relationship from moral equals to one having the power and the other being subservient. To avoid this, Kant believes that acts of beneficence should be anonymous[48]. This makes it easy for a company to consider its stakeholders in a general way and to focus on both what is in the best interests of the company and the legitimate expectations of its stakeholders whilst still showing respect for the dignity of its stakeholders.

Stohr argues that on a Kantian view, the obligation to exercise beneficence is limited to making a judgment as to whether the expectations of stakeholders are reasonable and that in the circumstances, there is nothing else that could be done that would

[47] K. Stohr, 'Kantian Beneficence and the Problem of Obligatory Aid', *Journal of Moral Philosophy*, Georgetown University, l2010, www.faculty.georgetown.edu/kes39/Stohr_201_Kantian_Beneficence_and_the_Problem_of_Obligatory_Aid.pdf, p 17.
[48] Ibid. p 29.

avoid an expression of indifference[49]. This approach gives precedence to the moral values that a company stands for over the nature of the need being met[50].

Thus, on a Kantian view, a company has an obligation of limited beneficence and planned obsolescence would not be a legitimate strategy to follow as it would not reflect moral values of the company. Planned obsolescence that aims to maximise profits for shareholders does not treat stakeholders with dignity and uses consumers as a mere means to an end.

As to whether beneficence interferes with a person's personal autonomy in terms of Mill[51], the limitation of interfering in a person's personal autonomy only to prevent harm falls within the ambit of the inclusive stakeholder approach. That is limiting harm with the least interference in personal autonomy does take into account the negative consequences of planned obsolescence on the environment and other stakeholders. The government is obligated to prevent environmental harm and companies are obliged to implement the relevant legislation. The devil is always in the detail and it is my hope that environmental legislation is crafted to serve the best interests of all affected stakeholders and not the vested interests of those able and willing to lobby for legislation in their interests. However, this debate is outside of the parameters of this research.

The question for both government and business as to whether it is legitimate to intervene in the affairs of business to address technological unemployment which arises when technology replaces a person's job from the perspective of interfering in personal autonomy is a more complex question. As mentioned earlier, technological obsolescence is part of the cycle of creative destruction which is the normal process of a capitalist society and promoting innovation, research and development and making peoples' lives easier through technological progress are all marks of a mature society. Creative destruction destroys jobs and industries and creates new categories of jobs and industries. Trying to protect outdated jobs does not have winners in the long run and does not contribute to creating and maintaining sustainable businesses. Other than to comment that it is legitimate and I would argue, mandatory, for government to be proactive and creative in developing

[49] Ibid.
[50] Ibid. p 31.
[51] Mill. Op. cit.

solutions to address technological obsolescence, such as providing tax incentives for education in the new job fields that arise and support entrepreneurial initiatives, I will not dwell on this aspect as my focus is mainly from a business perspective.

The inclusive stakeholder point of view is implemented through ethical leadership as consideration of the legitimate interests of stakeholders requires a demonstration of fairness, accountability, responsibility and transparency — all of which constitute the foundation of ethical leadership. Ethical leaders focus on building sustainable businesses, taking account of the social, environmental and economic conditions that they operate in and the impact of their activities on society, both short-term and long-term. To these ends, ethical leaders that endeavour to minimise or prevent harm would need to comply not only with the law but also with prevailing moral and ethical codes, as the law does not specifically target planned obsolescence and certainly does not address many of the issues relating to sustainability and job losses.

In the inclusive stakeholder approach, the board's primary responsibility is to generate a positive performance for the company, which extends beyond financial performance, of which I discuss further in section 6. I would argue that it is incumbent on business to actively provide the framework to create jobs to replace those lost through technological obsolescence and to mitigate the harm caused, i.e. loss of income and all the ancillary issues that follow. This requires companies to take proactive steps to replace lost jobs through creative solutions and falls within the general understanding of acceptable forms of paternalism. This argument would support the adoption of the inclusive stakeholder model and not limit a company's obligation to exclusively focus on making profits for shareholders. Furthermore, proactive steps to create jobs to replace those lost, actively supports a long-term view of developing sustainable businesses and communities. A focus on creating shareholder profits is a short-term horizon with a narrow focus that can often be at the expense of long-term sustainability and may include ethical compromises. An example would be sending large quantities of 'sale' goods to stores just before a company's year-end and 'booking' these as sales to make the year-end results look good but knowing that most of the sale goods are not likely to sell well and will be returned to the company a few months later. This could apply to CDs or videos that are no longer popular and the purchase of these items is generally declining due to

the introduction of new formats. The returned CDs or videos may thereafter be destroyed in an unfriendly environmental manner.

The inclusive stakeholder approach does not interfere with personal autonomy beyond preventing harm. If the affected employees have the choice to be put in an equivalent or better position through training and education to equip themselves for the jobs of tomorrow, the choice is still theirs.

As argued by Smith, markets do operate on self-interest and I believe that to be both appropriate and the commercial reality[52]. However, including the concept of beneficence does not exclude a company from acting in its self-interest. Self-interest, which includes beneficence, can bring benefits to a company. However, beneficence that is limited to preventing possible harm is too narrow as there are positive actions that a company can take that benefit other stakeholders and also benefit the company. For example, a company that invests in the infrastructure of the local community or a school feeding scheme for employees' children can result in fewer troubled parents and may therefore improve productivity and employee loyalty. Extreme forms of beneficence are not the answer either as lowering one's own standard of living to help other people means that a person ultimately has fewer resources to help others on a sustainable basis. The key is not just to give charity to others, as that maintains the status quo between the 'haves' and the "have-nots". The objective should be to make everyone better off, and at least protect the environment, if not improve it.

Significant population growth and ongoing technological advancements have created problems that were never anticipated and accordingly not addressed at the outset. Even if these had been known, the profit motive has been sufficiently persuasive that markets left to their own devices are unlikely to consider wider stakeholder groups.

By definition, the inclusive stakeholder approach, places the best interests of the company at the centre of the debate. Accordingly, ethical leadership does not contradict Smith's belief that markets operate on the basis of self-interest. However, to fulfill the requirement of ethical leadership only is not sufficient. Self-interest cannot be pursued without consideration of the impact of the company's activities on

[52] Smith. Op.cit.

other stakeholders. An ethical leader will balance the competing interests of the various stakeholder groups and take decisions on the overall impact, with a primary consideration for the long-term performance of the company. This means generating accretive profits for shareholders, assessing the impact on consumers, employees and other stakeholders and protecting the environment.

Friedman argues that management takes instructions and supports the interests of shareholders[53]. This does not demonstrate ethical leadership. It is not in step with current South African company law and the jurisdictions of many other Western democracies, where the focus has shifted from the interests of shareholders to the best interests of the company. One can argue that the law is not always just. However, the law in many instances follows the mood and ethical shift of the society in which it operates and reflects that moral framework. Moreover, people are not one-dimensional. Shareholders do seek to increase profits but also have other motivations for their actions and decisions, such as the satisfaction of providing a good product or service that serves the needs of consumers, being innovative, exercising and developing creative abilities, involvement in the workplace and society and leaving a legacy for the next generation. All these motivations demonstrate that many people operate within an ethical framework and may be motivated by beneficence and it is unrealistic to conclude that shareholders only want to make profits.

Let me now briefly address Friedman's point concerning the corporate executive who allocates company money for social objectives as acting against the best interests of the shareholders and spending someone else's money without authority. There are many companies that are founded on stakeholder interests that are both ethical and profitable. One of the most prominent examples is the Tata Group, which was established approximately 156 years ago based on the following four principles that it still upholds: having a deeper purpose; satisfying stakeholders in a balanced manner; exercising 'conscious' leadership which emphasises integrity, trust, mentoring and empowerment; and engaging employees and celebrating independence and teamwork[54] .

[53] Friedman, Op. cit.
[54] S. Sen, 'The Tata Way', 2011, www.tata.com/articleinside/wY0i01Xq5Y4=/TLYVr3YPRMU=.

In 2010, the Tata Group generated $67,46b in revenues, employed 350 000 staff and operated in 80 countries, thus proving the sustainability of its business strategy and values. R Gobalakrishan, director of Tata gives the thinking behind their business model when he states: 'We do business the way we do, not because we have clear evidence it has a better chance of success. We do it because we know no other way.'[55]

Shareholders who do not support Friedman's argument have the freedom to sell their shares if they disagree with how a company is run or how the money is spent. However, management is unlikely to use company money for social causes and meeting the legitimate interests of a wider stakeholder group if it will threaten the sustainability of the company. Consideration for the protection of their own jobs and the company's reputation are likely to ensure that the company focuses on a sustainable trajectory. An informal benchmark used in the South African business community is the allocation of 1% of after-tax profits to social investment causes. It would be hard to argue that this amount threatens the interests of shareholders and certainly does not negatively impact the sustainability of the company. The goodwill and social benefits that flow from well-managed social programmes may be more valuable than the redirection of profits. If some of this social responsibility money is allocated to education that changes some peoples' lives, and turns them into entrepreneurs that create jobs and consumers, it would be difficult to argue that this is not in the best interests of shareholders. Friedman regards this as a tax on the shareholders and argues that deciding on how the money should be spent is the role of government, not management. But it must be noted that business and ethics cannot be separated. Governments do not have the resources to fulfill all of society's social needs. Generally, major societal problems are best addressed through collaboration between different stakeholder groups. Public private partnerships can be very successful, with each partner contributing its strengths to the success of a programme.

As Willard has argued, acting within the law does not deal with morality and does not address the moral character of people[56]. Morality covers all aspects of a person's life and if a person does not apply reasoning and exercise judgment in each

[55] Ibid.
[56] Willard, 2012. Op cit.

situation, humans cannot progress. Where laws are unjust, it has always been the thinking person, not afraid to voice a contrary view, who has started the process to dismantle an unjust law. This has in many cases been at a significant cost to the person in his individual capacity or his business. An example would be that Government has withdrawn a significant portion of its advertising from newspapers that it perceives to be 'hostile' to its point of view. Media companies that value editorial independence have accepted this price for maintaining their values of investigating and reporting matters of public interest to readers. Morality cannot be extricated from business transactions. A business person should first and foremost consider the best interests of the company, which would entail enhancing the value of the company for shareholders. However, value is not restricted to profits and profits cannot be looked at in isolation, without consideration of the impact of the company's activities on other stakeholders, both in the short-term and long-term. Implementing strategies today, such as planned obsolescence, which boost sales, may lead to the death of the company down the line if customers do not feel they are getting value for money. Environmental damage and e-waste issues will eventually have to be addressed. If the company does not do so, affected stakeholders will take whatever action they deem necessary to have their concerns addressed. This is already evident in various protest actions around the world such as communities experiencing respiratory problems from industrial pollution in China.

Shareholders who have a narrow focus of accumulating profits only will not retain loyal customers or staff. Customers value many aspects of a purchase and want to believe that they have received good value. If a company cannot retain loyal customers and staff, its profits will decline and its 'death date' will follow.

Rautenstrauch noted that the ultimate cause of the 1929 Depression was the profit motive. His analysis was that greed had displaced social harmony. In response, he advocated that engineers take up the responsibility of reorganising supply and demand and work on the principle of production for prosperity of the many rather than the few[57].

[57]Rautenstrauch (as cited in Slade, 2006), '*Made to Break Technology and Obsolescence in America*, *Fifties and Sixties'*, Chapter 2: Obsolete Man, Cambridge, Massachusetts, Harvard University Press.

An inclusive stakeholder approach means meeting the needs of the current generation without compromising the needs of future generations. This concept speaks to the highest morals that both business and private individuals should adopt. A person cannot cast off his or her moral values in the business environment but what enlightened self-interest does do in the context of an inclusive stakeholder model, is to enable management to consider all the relevant stakeholder groups and the impact of the company's decisions on each of these groups. Moral compromises will often be made, many of which may be unpalatable, but these decisions must be made from reasoning and applying judgment, taking into account applicable restraints such as limited resources.

I believe that the inclusive stakeholder approach is the key to long-term sustainability. I support the objective of Companies Act's objective of taking into account the legitimate interests of all relevant stakeholders[58]. Doing so creates a satisfied workforce and a harmonious society. A satisfied workforce is productive and strives for improvement. This approach is consistent with King III[59], whose values and recommendations are aligned with the Act. The nutshell of these values can be seen in its fairly recent requirements of integrated thinking and reporting for listed companies, which it takes as providing the tools to define success not only in terms of profits but how companies' activities create value in the long-term for themselves and other stakeholders across the six capitals as mentioned in the Integrated Reporting Framework above.

This means that planned obsolescence has to be acknowledged as a strategy employed by most businesses. It must be critically examined to ascertain what aspects of it are legitimate and what aspects are not. This entails ethical leadership as it may very well lead to an environment of lower profits, particularly in the short-term, until a new model is put in place. Companies would need buy-in from stakeholders and various laws would need to be enacted or changed to ensure enforcement. This takes time, courage and commitment. Planned obsolescence practices need to be disclosed to consumers together with actions to be taken for eliminating over time those aspects that are not legitimate. Ethical leaders need to play a key role in changing values such as conspicuous consumption through a

[58] Parliament of the Republic of South Africa, 2008. *Companies Act o 71 of 2008,* Pretoria. Government Printers. Section 7.
[59] Institute of Directors of Southern Africa, Op. cit.

change in marketing strategies and supporting the growth sides of businesses that are aligned to sustainability. Abandoning planned obsolescence strategies and increasing the longevity of products can create demand for new revenue streams such as maintenance and after sales services, that are labour intensive and sustainable. I will address this in more detail below.

6. PLANNED OBSOLESCENCE, ENVIRONMENTAL SUSTAINABILITY, ETHICAL LEADERSHIP, AND BENEFICENCE

In this section I will discuss the different types of planned obsolescence that I outlined in section 2 in connection with environmental sustainability, ethical leadership, and the principle of beneficence.

6.1 Creative Destruction

Joseph Schumpeter developed the concept of 'creative destruction'[60], which describes the process of the death of certain businesses and the recreation of new, innovative products and services as a normal business cycle. One of the consequences of creative destruction is technological obsolescence. The key principle for capitalism's success comes from constant new consumer goods being created by capitalist enterprises. The market takes resources away from failing companies and reallocates them to successful companies through what he terms 'the invisible hand'. Schumpeter argues that entrepreneurs drive economies through generating growth. In the 1930s, Schumpeter further argued that innovation has high costs in the creative stage and minimal costs in the production stage, leading to monopolies in the initial stages of new innovations until challenged by competitors. In order to maintain a major share of the market and remain competitive, the initial innovators need to continuously develop further innovations. Less plausible, is Schumpeter's view that entrepreneurs will disappear as innovation becomes mechanised which he alleges has taken place in Japan and will ultimately result in socialism. However, where entrepreneurs cannot thrive, they move to other countries or continue to innovate on the 'black market'. There does not appear to be evidence that innovation has led to socialism.

[60] All Wired 10.03. 'The Father of Creative Destruction', 2002.

Schumpeter does acknowledge that job losses are one of the unfortunate consequences of creative destruction and some people may not only lose their jobs but may never obtain other jobs. However, he argues that endeavours to protect jobs are self-defeating as it will lead to stagnation and ultimately a decline in the economic fortunes of a society. [61] Schumpeter calls this 'technological unemployment'. The invention of the railways and the Internet are examples of industries that rendered some jobs obsolete and created new industries and jobs in the process, leading to thriving economies. Schumpeter argues that entrepreneurs develop new products and technologies for profits for themselves. Competition is an inherent component of capitalism and new businesses compete on lower prices, better quality, service, new features and use more aggressive marketing techniques to gain market share. Schumpeter argues that this contradictory aspect of creative destruction is based on self-interest and that progress makes others better off[62].

Smith's 'invisible hand' shifts resources from declining industries to growing industries as workers, employers and providers of financial capital seek the highest returns. This trajectory leads to ongoing increased wealth through improving the productivity of resources. Technological developments enable fewer resources to be used to produce more products and services at a faster rate. For those losing jobs, the pain is immediate whereas the payoff from creative destruction has a longer horizon. Some governments and trade unions with short-term objectives have endeavoured to protect outdated jobs. This has impeded progress and in the long-term proved unsustainable. In practice, 'inefficient producers hang on, at a high cost to consumers or taxpayers'[63]. From the perspective of creative destruction, planned obsolescence is inevitable in a capitalist economy and is in fact essential for a thriving, growing economy but the benefits take longer to manifest themselves to the general population. The term 'creative destruction' vividly describes the tremendous benefits and painful consequences of the process.

[61] Schumpeter (as cited in Cox, and Alm, 'Creative Destruction', 2nd edn., *Library of Economics and Liberty, The Concise, Encyclopedia of Economics,* Liberty Fund Inc. http://www.econlib.org/library/Enc/CreativeDestruction.html .
[62] Ibid.
[63] Ibid.

Schumpeter notes that the pursuit of self-interest through innovation to increase profits simultaneously increases other peoples' wealth[64]. One could argue that this is a limited form of beneficence.

In 1956, Nelson promoted the idea that obsolescence needed to be planned to avoid waste and ensure that it continually produces wealth. He believed that planned obsolescence leads to constant renewal of industry and provides a way of ensuring that the maximum number of goods reaches the maximum number of people. He believed that if obsolescence is slow and haphazard and there is inadequate information and control over the process, it leads to waste[65]. Thus Nelson's approach to planned obsolescence contained a limited ethical component and supported a Utilitarian approach to the practice of planned obsolescence.

In 1959, Cunningham published an editorial in *Design News* arguing that all products have a finite life, whether planned or not[66]. He advocated that the product with the longest life is not necessarily the most economical. Thus, he supported Schumpeter's theory of creative destruction. Newer models of computers becoming cheaper and smaller over time as well as being able to provide increased functionality at a faster speed support this.

The impact of creative destruction on jobs was very profound at the time of the mechanical revolution, the industrial revolution and now with the technological revolution. These types of major disruptions mainly affect lower skilled jobs and create opportunities at the more skilled and professional levels. However, the current wave of technological innovations, which is automating not only mechanical jobs but intellectual jobs, is having and will have a more pervasive effect on job losses than the mechanical and industrial revolutions. At the top end of creative destruction, the difference in skills may be sufficiently profound that existing employees cannot adapt. A current example is that with the convergence of technology, journalists who used to specialise in writing in print or digital format, are now required to write over a multitude of platforms. However, the skills and style of writing differs markedly on different formats and not all journalists are able to adapt.

[64] Ibid.
[65] Nelson (as cited in Slade) *Made to Break Technology and Obsolescence in America*: *Fifties and Sixties*, Cambridge, Massachusetts: Harvard University Press, 2006.
[66] Op. cit.

Journalists of the future will require a much broader range of skills and expertise to survive in their profession.

Baxter is a general-purpose robot that can now do everything within reach of its arm. It learns through observation and with each new technological advancement, becomes cheaper to produce and does the work faster. Self-driving cars are estimated to affect 70 million jobs[67]. They do not need to do the job perfectly. Relative to humans, they need to perform driving tasks cheaper and cause less accidents. Other types of robots (Bots) can write articles and reports. IBM has a robot, Watson, that can diagnose medical problems with less mistakes than human doctors[68]. Bots are even entering the creative field, performing complex creative tasks such as composing music. Uber, whilst still using humans, is app based, changing the business model of the taxi industry and shifting market share to its app based model that has a significantly cheaper cost base. It owns no vehicles. It partners with drivers and creates a trust relationship between driver and consumer. Its most valuable asset is its brand. From an ethical point of view, a scandal impacting its reputation would be very hard to recover from. It has created an interesting job model where the drivers have a range of finance options to own their motor vehicle over time. However, in South Africa, the tension between Uber drivers, offering a cheaper service, and traditional taxi drivers has become violent in many instances as traditional taxi owners endeavour to protect their revenue stream. This is a good example of how quickly innovation can take place leaving legislation unprepared and a traditional taxi business in a state of anxiety without leadership. In South Africa, current transport legislation does not provide for apps. Accordingly, a challenge to the Uber model, citing unfair competition, which has been raised, would have difficulty succeeding as only the traditional taxi business falls under current Road Traffic and Transport legislation. Other business models that have adapted to modern technology are companies such as Amazon where trading is conducted over the internet and all Amazon needs is warehouses, thus reducing the footprint and retail space required in malls. This negatively impacts property companies in the retail space and shops that see a diminishing footprint in a shopping centre. Many of these shop owners may not have skills to go into another industry or may be too old to start learning something new.

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[67] Rethink Robotics, 2016. *What makes our robots different?, http://www.rethinkroboics.com/baxter/what-makes-our-robots-different/* .

[68] C .G. P. Grey, 'Humans Need Not Apply', 20014, www.yotube.com/watch?v+7Pq-5557XQU.

Ethical leaders need to anticipate job losses that will arise from creative destruction and put in place strategies that address the welfare of the affected employees and adopt appropriate 'green' initiatives to address environmental sustainability that arises from the ever increasing production and disposal of new products.

6.2 Technological Obsolescence

Technological obsolescence results from creative destruction. The electric starter for automobiles was introduced in 1913 rendering all previous models of cars obsolete. However, it freed women to drive unassisted[69]. This invention led to the creation of new industries and customers. It enhanced shareholder wealth and improved the quality of life for people who could afford to buy cars. From a business perspective, this type of technological obsolescence improves competition, efficiencies and reduces costs. This would meet the criteria for beneficence but fails to address environmental sustainability which would be an important component of ethical leadership.

It is interesting to note that there is a light bulb in the fire station at Livernare, California, U.S.A that has been burning since 1901 [70]. The relevance of this is that we have the technological capability to make things last for a long time but generally not the will. On the other hand, if durability is valued above progress, it is possible that we would not have many of the beneficial and enjoyable innovations that have increased the well-being of society over time. However, this light bulb does challenge Schumpeter's theory that everything has a limited life span.

Creative destruction supports a capitalist economy and increases overall wealth. Schumpeter argues that entrepreneurship is a key driver of economic development and capital accumulation is the major result[71]. However, there are unintended consequences that raise a number of ethical issues.

As developed societies became wealthier, their increased spending power increases demand. There is evidence that consumers do not automatically use surplus income

[69] G. Slade *Made to Break Technology and Obsolescence In America*, Harvard University Press, 2008, Introduction.
[70] E. Blake, '*Help! My Toaster's Broken, A Short Story of How We are all Victims of Something Called Planned Obsolescence*', 2012, ericblakebooks.blogspot.com, Kindle.
[71] J. A. Schumpeter and J..A. Elliot, *The theory of economic development, 1982,* New Brunswick, Transaction Publisher.

to satisfy new wants. Poorer people tend to allocate surplus funds to replace necessities whereas the middle and affluent classes have the choice of spending surplus funds on non-essentials[72]. Furthermore, Campbell argues that peasants who acquire wealth suddenly tend to use the money to employ others to do their work so that they can have more leisure time and improve their social status. There is a distinction between the ability to buy inessentials and a willingness to do so which is often a result of cultural differences in a society and family values. Thus, if conspicuous consumption is not a universal value, it indicates that it is possible to change it to a more virtuous character trait. Virtue ethics would not regard conspicuous consumption as developing a virtuous character. Accordingly, an ethical leader would not encourage conspicuous consumption and would devise other strategies to increase shareholder wealth and cultivate more virtuous character traits.

Johnson defended luxury on the grounds that it gave work to the poor. Idle workers create a need for charity. His view was that the creation of wealth is a public benefit[73]. I would argue that this is a very narrow view and that more meaningful work could be created to benefit the workers and ensure that they do not continue to depend on the benevolence of wealthy people. Rather, an investment could be made in the lives of poor people to provide them with the skills and resources to provide a more sustainable living for themselves and not just increase the wealth of employers and promote conspicuous consumption. From what we have said about ethical leadership and beneficence above this approach will be consistent with ethical leadership.

Puritanism condemns idleness, luxury and indulgence from a moral and religious perspective. However, consumerism was carried out by the part of English society with the strongest Puritan traditions i.e. the middle class. This was justified on the grounds that buying and showing you had non-essentials was evidence of fulfilling your desire for upward social mobility. This led to an abandonment of Puritanical values and the adoption of desires for luxury and status.

[72] C. Campbell, *The Romantic Ethic and the Spirit of Modern Consumerism,* 3rd edn., London, , Alcuin Academics, Kindle 978-1-78018-002-1. 2005.
[73] Johnson (as cited in Campbell). *The Romantic Ethic and the Spirit of Modern Consumerism, The Problem of Justification*. 3rd edn., London, Alcuin Academics, Kindle 978-1-78018-002-1, 2005.

Whilst creative destruction creates wealth, without business demonstrating ethical leadership through guiding values such as the Tata Group described above, surplus funds can be spent on conspicuous consumption. This widens the gap between rich and poor, making a small proportion of the global population richer, being the shareholders, and the majority probably no better off.

In time, it is possible that the question of the ethics of planned obsolescence will itself become obsolete through the process of creative destruction in that progress necessitates the death of certain businesses and for a business to be sustainable, it continually needs to reinvent itself. The pervasive use of open source products may well make planned obsolescence in relation to information an unviable strategy. Using open source software means that devices no longer have the same importance. Distribution is free and modification is possible, hence it can eliminate over time, the strategic advantage of incompatibility issues with certain devices[74]. This would mean that if a person purchased a MacBook Pro laptop, they would not necessarily be locked into purchasing other Apple devices that have restricted compatibility. Perhaps this type of innovation will extend to other industries in time. This could spark a shift in values as consumers would have more freedom of choice. However, it may not necessarily change their choices if social status is one of their defining values.

The profound impact of functional enhancement or creative destruction on job losses is evident at the McDonalds that opened on 4 July 2015 in Phoenix. It is run entirely by robots[75]. The robots work quicker than people and do not make errors. There is a small group of people who ensure that the robots are working correctly. If you extrapolate this over time into all industries, the current chronic unemployment problem will become unmanageable. The average person's ability to earn a living will be severely tested. This problem needs to be addressed and ethical leaders have the power and influence to do so. Thus, it is incumbent upon business to adopt an inclusive stakeholder approach in its business practices.

[74] T*he Open Source Definition* (Annotated), Open Source Initiative http://opensource.org/osd-annotated).
[75] D. Rubics, *New McDonald's In Phoenix Run Entirely by Robots, 2015,* http://newsexaminer.net/food/mcdonalds-to-open-restaurant-run-by-robots/.

6.3 Limited Functional Life Design

Limited function life design is legitimate where it serves a need of the consumer. Sometimes, these practices started out as a response to address adverse economic conditions. For example, during the 1929 Depression, cheaper, inferior products were used as a cost-cutting measure. A side effect was that it stimulated demand. A key failing was a lack of disclosure to consumers of the shortened life of these products and the use of inferior materials.

The start of the disposable culture in the mid-19th century was a response to the availability of a variety of cheap materials. Several disposable products appeared such as shirt collars and cuffs during the 1920s. This strategy, motivated by a desire for increased profits, gained momentum. Initially, the disposable culture focused on personal products such as razors, condoms, tissues, and the like. The benefit to the consumer was not only convenience but also improved health and hygiene, both objectives demonstrating beneficence. The negative side was that no thought or concern was given to where and how products were disposed of and the increasing amount of waste created, elements that would have demonstrated ethical leadership and a concern for sustainability.

Another common planned obsolescence strategy that is still very prevalent today and has no ethical foundation is the Ketchup and Mustard Trick. The general idea here is to stimulate early repeat purchases. This is achieved through making it difficult to get the last bit of Ketchup and mustard out of the bottle, deliberately forcing consumers to buy new products sooner, thereby increasing sales and profits. One hundred million tubes of toothpaste are thrown away each year, all with toothpaste still in them[76].

Another design element stimulating premature purchases is to make the opening of the bottle intentionally large, for example, for bubble bath or olive oil, so that consumers unintentionally use too much, again resulting in having to replace the product sooner and increasing sales and profits. This is well entrenched in both food and bathroom products and has no ethical justification[77].

[76] E. Blake, Op. cit.
[77] Ibid.

London proposed limited function design as a viable solution to the unemployment crisis that developed following the 1929 crash and the resulting Depression[78]. He recommended planning the "death date" of products at the time of consumption. At the expiry date, a government agency would destroy the product. Consumers who retained products beyond their "death date" would be taxed, the rationale being that they were impeding the development of new products and what London believed would lead to normal employment levels and a flourishing capitalist economy. In today's environment, the destruction process would hopefully be legislated to be environmentally friendly although this was not considered at the time. The consumer would receive a receipt indicating what value the product would carry on the return date, being the expiry date, which value would be used as partial payment to facilitate the development and production of new products. It would be mandatory for the receipt to be accepted when the consumer purchased a new product in lieu of sales tax, thus raising revenue for the government. The idea was that this system would result in a constant stream of new products being produced, thus providing ongoing employment opportunities[79].

The limitation of this plan is that government control of the market does not facilitate growth. It impedes growth. The disastrous economic performance of Communist countries supports this conclusion. The numerous 'ghost cities' in China built to create employment without any relation to demand is further evidence of government unsuccessfully endeavouring to control the market through supply rather than responding to demand. The Chinese Government has significant debts at the municipal level to fund its idea of economic success, which will ultimately reach a crisis point. All evidence suggests that this is taking place now.

On the other hand, the introduction of tariffs to protect local industries has proved to be a successful strategy globally as it encourages local competition and has the potential to create jobs and improve local efficiencies and costs[80].

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[78] B. London, '*Ending the depression through planned obsolescence',* 1932, https://openlibrary.org/books/OL6281504M/Ending_theik_depression_through_planned_obsolescence

[79] S. Hong. *China's Plan for Local Debt Amounts to a Bailout,* 'The Wall Street Journal', 2015, http://www.wsj.com./articles/chinas-plan-for-lcoal-debt-amounts-to-a-bailout-1434998702.

[80] A. Secombe, *Tariffs bring relief to steel market*, 'Business Day Live', 2016, http://www.bdlive.co.za/business/industrials/2016/01/08/tariffs-bring-relief-to-steel-market.

Reverting to the ethical problems with London's proposal: the power and choice is taken away from the consumer, thus infringing on a person's liberty. There is no connection between supply and demand, which drives competition, prices, and efficiencies. In the context of Mill, it would be hard to justify that this strategy was designed solely to prevent harm[81]. The consumer's liberty is being interfered with through no longer having a choice as to when to replace a product and would be obliged to incur the cost of a new purchase as determined by the government. A uniform 'death date' for a product would not work practically as the amount of usage, careful maintenance and storage conditions, which would vary from person to person, would all impact a product's longevity.

A further problem with this proposal is defining the boundaries as to what goods it would apply to and what would be an appropriate timeline for different categories of products. London implies that it would apply to all goods and specialists would determine appropriate time frames. It seems implausible to me that this rationale could be applied to the purchase of antique furniture or art, to name just a few categories of goods. Art and antiques have other qualities that most likely would not include functionality. Would these items also have a death date divorced from the owner's desires? London implies that this system would balance supply and demand and reduce inequality. Destroying appliances and other items of use to fit into a rigid set of rules does not seem to be an efficient use of finite resources. I do not believe that specialists could accurately determine what goods are obsolete either, as different people value things differently and may find a new purpose for something, with or without some adaptation. This would stifle consumer choice and creativity, thus impinging on a person's liberty. It also deprives a person from making a rational decision about the continued use of a product to meet his or her needs.

The importance of London's proposal is that he was responding to the very significant problem of unemployment which demonstrated both ethical leadership and beneficence. However, the main flaw in this proposal was to promote increased production to stimulate more spending and unnecessary consumption rather than focusing on issues such as innovation to stimulate employment and economic growth. The increased production negatively impacted environmental sustainability and promoted conspicuous consumption.

[81] B. London. Op cit.

Over time, different policy strategies, the media and business have proved that they can influence and change values. This is where ethical leadership comes in. Ethical leaders make the right decisions to stimulate employment, create wealth and protect the environment through rational decisions, taking into account the impact on all relevant stakeholders.

An example of a company effectively achieving this is the Volkswagen Beetle. In 1959, the Volkswagen Beetle sold 150 000 of the 600 000 foreign cars sold in the U.S.A. It was cheap, easy to drive, dependable and there was no change in the design or function from one year to the next. This was a deliberate anti-establishment strategy to overtly reject the culture of consumerism. No superficial changes were made from 1951 – 1961. Their advertising campaigns attracted twice as many readers as other motor vehicle advertisements[82]. This is a very powerful example of how the values and strategy of a company can change consumer thinking.

A key issue and an omission with death dating is that the details are not disclosed to the consumer on the label of the product or some other easily readable and accessible way so that the consumer can make an informed decision as to whether the product offers good value for money.

Death dating serves a purpose where it is limited to products that have a health benefit or some other public benefit such as tinned food, toiletries and medicines. For all other products, there should be a carefully thought-out balance between the cost of durable materials used, consideration for environmentally friendly components, convenience to the consumer and an assessment of a reasonable life span of the product in relation to its purpose and disposal in an environmentally friendly way. The conclusions would vary from product to product. For example, a razor would be expected to have a substantially shorter life span than a fridge. These are all strategic issues that ethical managers should consider. The information should be disclosed to consumers to make informed decisions and guide business strategies on future production quantities.

[82] G. Slade, *Made to break: Technology and Obsolescence in America,* Cambridge, Massachusetts: Harvard University Press, *Death Dating*.

6.4 Design for Limited Repair

This strategy appears to have no ethical foundation and no legitimate justification. This strategy can only be guided by Friedman's idea that the purpose of business is to make profits and everything else is strategy. This would not meet a Utilitarian viewpoint of maximising happiness for the greatest number of people as only profits for shareholders are taken into consideration. One could argue that employees would also benefit financially if the company becomes more profitable. However, no consideration is given to consumers, a very important stakeholder. This strategy reflects a leadership that does not focus on moral issues. It fails to take into account the legitimate interests and expectations of other stakeholders, including the environment and has only a short-term horizon. It is socially irresponsible as it creates unnecessary waste and forces the consumer to replace a product for artificial reasons. It would also not meet Kant's categorical imperative of treating all people with dignity and not using people as a means to an end. Consumers are worse off. Their liberty is infringed as the uneconomical cost of repair forces them to prematurely purchase a new product. There is also no component of beneficence in this strategy which is a duty of ethical leaders.

In 2003, iPod customers sued Apple because of the short life span of the iPod batteries. After 500 charges, the battery stopped working. The cost of repairing iPod batteries was almost the same as buying a new one, a common feature of design for limited repair. A settlement was eventually reached between all parties, which included extending the product warranties[83]. This strategy has been used by many other appliance companies as well and continues to be used. For this practice to be eliminated, ethical leaders need to devise strategies that are both ethical and profitable and consumers and other interest groups need to become active citizens and take up the cause as well.

6.5 Design Changes that Lead to Reduced Psychological Satisfaction

This form of planned obsolescence precipitates premature disposal based solely on psychological obsolescence. This strategy achieved acceptance in the 1920s following the war of values between General Motors and Ford. Henry Ford and

[83] E. Blake, *Help! My Toaster's Broken, a short story of how we are all victims of something called planned obsolescence', 2012, ericblakebooks.blogspot.com, Kindle*.

Alfred Sloan (General Motors) were products of their class, culture and ethical values. Ford was primarily interested in providing consumers with a good, durable motor vehicle at an affordable price. As mass production increased, Ford was able to improve efficiencies and lower costs until the market reached saturation point.

Initially, General Motors tried to compete with Ford on technological superiority. When this did not work, Ford embarked on a campaign of psychological obsolescence but by this time it had lost its competitive edge. In 1923 General Motors introduced new, stylish designs to its motor vehicles to make them more psychologically appealing and focused their marketing campaign on the design elements to boost sales. This strategy was very successful and spread to other industries such as watches and radios. Consumers proved willing to trade up for style and new models and styles encouraged consumers to make repetitive purchases without any improved functionality[84]. Through aggressive marketing, this strategy assisted companies to increase their market share in the industries in which they operated. Packard in *The Hidden Persuaders[85], 1957* revealed how advertisers relied on motivational research to manipulate potential buyers into making purchases based on psychological obsolescence. This strategy does not have a moral dimension and is motivated by the short-term strategy of boosting profits. It does not take into consideration that over-production creates unnecessary waste and diverts funds from more useful and ethical choices and that the cost of disposing of environmental waste may be significant, both in financial terms and the health of people, animals and the environment. Whilst stimulating production ensures ongoing jobs and profits, this needs to be balanced against the unethical consequences of conspicuous consumption and environmental degradation.

Ford's low cost cars lasted on average eight years, which was approximately two years longer than any other motorcar. Prices were kept down by offering a single colour which maintained demand. For Ford, the integrity of the product was the first consideration, followed by consumer demand and profit was incidental. This resulted in huge brand loyalty but caused his defeat in the long-term[86].

[84] G. Slade, *Made to Break: Technology and Obsolescence in America,* 2008, Cambridge, Harvard University Press, Introduction.
[85] V. Packard, *The Hidden Persuaders.* 1957. Singapore: lg Publishing.
[86] Ibid. Chapter *2.*

The failure of General Motors' early technological improvements led to a new model whose main change was in the design, which made Ford's T-model look dull and uninspiring. Ford's new designs for the Chevrolets proved to be very successful. The negative side of this strategy was that it was wasteful to frequently produce a different model.

Style could shorten the life of a product quicker than any technological improvements. It was also cheaper to manufacture a new design than make any technological improvements and consumers were very willing to buy up for style. General Motors aggressively focused on marketing the new designs to consumers, rendering the old design obsolete, thus it was in effect competing with itself. Ford's sales declined as a result of this successful strategy, forcing Ford to introduce newer, more interesting styled motor vehicles. In 1934, the average period of motor vehicle ownership was five years. By 1955, this had shrunk to two years. Most new purchases were based on design changes[87].

In 1927 Ford stopped production of its Model-T motor vehicle and introduced Model - A which had technological improvements, making it run quieter and smoother. Its design was more fashionable and it was manufactured in a range of colours. Furthermore, it was cheaper than the Chevrolet. Despite all these apparent benefits, after an initial boost in sales, Model A sales declined. According to Slade, the reason was largely related to Ford still being committed to manufacturing durable motor vehicles, rather than embracing psychological obsolescence[88].

This is again a very powerful example of how business can shape the values of consumers and unfortunately, in this instance, design obsolescence became the dominant strategy, embedding a culture of conspicuous consumption which has become more entrenched over time and spread to more and more industries.

Further developments in this regard took place in 1927 when Arens designed art deco lamps and wrote an article in the Atlantic Monthly entitled, '*Beauty: The new Business Tool*', which contributed to product design becoming popular. Efficiency

[87] Ibid.
[88] Ibid.

was not enough. It did not satisfy the soul. This was regarded as a factor in the production and marketing of the good.

The concept of style obsolescence is that old things are less valuable because they are dysfunctional when compared to new things. Style obsolescence promotes conspicuous consumption as people who frequently buy new products because of changes in style compare their social status to others based on disposable income and taste [89].

Understanding human motivation for supporting design obsolescence is a combination of many factors. The argument that beautiful things feed the soul as suggested above, does not apply to psychological obsolescence. Although everyone enjoys being surrounded by beautiful things and beautiful things can be inherently valuable, I would argue that design obsolescence does not meet these criteria. To be inherently valuable, beauty must endure whereas design obsolescence is the antithesis of this. It is no longer beautiful a year later. In fact, its value decreases as soon as a new model is released. Hence, I would argue that design obsolescence responds primarily to peoples' psychological need for social status, which manifests in conspicuous consumption. The consumer is never satisfied with what he or she has whereas a person owning something that is truly beautiful never becomes tired of looking at it, or, if it is music, listening to the same piece. Its value increases over time, both financially and in the appreciation of its beauty. The endurance of art and music over many centuries is testament to these values whereas design obsolescence does not meet these criteria.

Ethical leaders should not support psychological obsolescence and conspicuous consumption. Whilst it may generate short-term profits and job creation, it creates unnecessary waste, causes environmental damage and demonstrates unethical values in a company.

Product designers can play a key role in promoting positive behavioural changes by making products that are environmentally friendly and have longer life spans. Ethical leaders can speed up the process by raising awareness through instilling these values in their own companies and through positive marketing and advertising

[89] Ibid.

campaigns to consumers. Many designers have responded to social and environmental awareness of conspicuous consumption and unfriendly environmental practices by developing eco-designs and sustainable designs[90]. There is a tension between fear of market saturation leading to reduced profits and producing more durable products at little extra cost which reduces the frequency of consumer purchases[91].

Sustainable product design incorporates environmental, economical and social sustainability issues into design. There may need to be a trade-off between these three objectives as it is unlikely that a product has no negative environmental impact. The maxim used for responsible design should be to create the most sustainable product taking into account the input of the six capitals mentioned earlier in this research report whilst minimising the harmful effects on humans, animals and the environment. The economic and environmental metrics are easier to measure over time than the social impacts. Monitoring the metrics enables designers to continually respond to negative outcomes that may arise and need addressing. The importance of a pleasing design contributes to ensuring sustainability as if the consumer purchases a customised, attractive product, its perceived time frame for psychological obsolescence is likely to be deferred as the consumer will most likely want to retain it for a longer period.

There are a number of industrial designers and engineers that practise sustainable design. These have gained credibility through educational forums and the establishment and disclosure of assurance programmes that are endorsed by agreements, the most notable being multilateral agreements developed by the United Nations, which are governed by international law. These include the United Nations Framework Convention on Climate Change, the Kyoto Protocols and the United Nations Convention on Biological Diversity[92].

Examples of more sustainable designs focus on an assessment of the environmental impact at the design stage, developing products that are adaptable to changing technology and needs through replacing subsystems or modules rather than the total

[90] O. Diegan, S. Singamneni, S. Reay, & A. Withell, 'Tools for Sustainable Product Design: Additive Manufacturing', *Journal of Sustainable Development*, 2010, vol. 3, no. 3.
[91] Ibid.
[92] Eskom, 'COP17 fact sheet', MEA negotiations. No date. http://www.co.za/AboutElectricity/FactsFigures/Documents/Help_for_Multilateral_Environmental_Agreements_for_Negotiators.pdf.

product. These designers take cognisance of consumer culture that values fashion and social status. Thus, the product approach is holistic, taking into account the entire product life cycle and the needs and values of different stakeholders. At a micro level, the design decisions would need to align with the company's strategic priorities on positioning and growth objectives [93].

6.6 Design for Functional Enhancement through Adding or Upgrading Product Features

This type of planned obsolescence has proved to be very effective. The key question here is how much of an enhancement or upgrade warrants the legitimate ethical release of an upgraded product to the market and at what stage is it ethical to stop servicing and providing parts to older models. The essence of what is acceptable relates to the values that a society subscribes to at the manufacturing, retail and customer levels. As suggested above, business can play a significant part in guiding values as to when to responsibly release an upgraded version of a product as well as responsible strategies for products that will no longer be used.

Apple has been extremely effective in marketing frequent upgrades of its products, often with minor functional enhancements, creating the perception that previous versions look old and less prestigious. It has also integrated all its products and limited its functionality so that its products are incompatible with many non-Apple products, thus locking the consumer into purchasing a variety of Apple products to meet their functional needs. Another strategy used to stimulate artificial demand is to ensure that new models are not compatible with older models.

Legitimate functional enhancements should result in more serviceable products at a lower cost. However, in many cases, small product enhancements come at an increased cost which indicates that design, social status and a constant desire for something new is a greater component in driving consumer purchasing behaviour than functional enhancement.

In the 1960s, as intellectual products were developed, such as video games, word processing programmes and accounting spreadsheets, the concept of planned

[93] J. Guiltinan, Op. cit. p 24.

obsolescence extended from applying to physical products to people's knowledge, training and skills. The introduction of transistor radios, hand-held calculators and video games, introduced the problem of e-waste. Calculators were cheap to produce, had a short battery life and became the first generation of microchip e-waste[94].

Initially functional enhancements were substantial and these could be allocated to the category of creative destruction. For example, in 1977 Apple sold 7 000 Apple IIs. In 1979 when it included VisiCalc, it sold 35 000. This signified the move of computers from hobbyists to commercial use[95]. However, this level of innovation is no longer the case with Apple's current releases into the market. To maintain its competitive edge, it is diversifying into other product lines such as televisions, but still maintaining a strategy of new design features as the key element of upgrades and marketing.

In the late 1980s, Word and Excel packages, originally developed for the Mac platform, were licensed to IBM, which resulted in Microsoft becoming the largest software manufacturer in the world. The rapid pace of technological obsolescence became an accepted fact in software design. Application packages were updated every 18 months. These developments probably still fall into the category of creative destruction but the pace of expected new upgrades has made the design element a key feature and the upgrade marginally incremental.

However, planned obsolescence designed for an artificially short life span is now well entrenched in technology and other industries. Campbell[96] described modern consumption as an 'endless pursuit of wants' that is insatiable. He affirms that planned obsolescence is firmly entrenched in manufacturing and that the definition of 'worn out' is a moving target. However, he attributed this not only to manufacturers and marketers but also to consumers' 'throw-away' culture. Not only does this sustain a certain self-image and social status but early adopters play an informal role in convincing other people to accept new technologies. Hence, the chain of

[94] G. Slade, Op. cit., Chapter 7, Chips.
[95] Ibid. Chapter 7.
[96] Campbell (as cited in Slade). *Made to Break: Technology and Obsolescence in America.* Cambridge, Massachusetts: Harvard University Press, 2008, Chapter 9.

changing consumer behaviour, which can start with the powerful platform of companies, can gain momentum through early adoption by consumers.

Guiltinan notes that rapid product development is a business strategy to maintain a competitive edge. Designers include pleasing design elements to increase the value of upgrades but they are insensitive to the concept of sustainable innovation and are promoting conspicuous consumption[97]. An alternate strategy to maintain and increase profits is renting products. This creates a sustainable annuity for business but does not eliminate planned obsolescence as there is no other income from these products and hence the focus transfers to creating the next generation of products to increase the company's revenue streams. There is not much research on consumer behaviour in this sphere but it appears to be self-evident that style, driven mostly by marketing, contributes significantly to planned obsolescence.

Spinks raises the question as to why consumers accept all the risk of planned obsolescence and suggests that it is because no one has developed a subscription model for electronics that places the risk elsewhere.[98] I would argue that business has no motivation to do so.

Spinks suggests that manufacturers claim that they are catering to consumer desires for new, fashionable devices.

There is some evidence that there are consumers who do care about both beautiful designs and environmental responsibility. In 2012, Apple released the new notebook computer, the MacBook Pro with retina display[99]. The design was regarded as beautiful but it also had functional enhancements such as being very light and according to Apple, had the 'highest-resolution display ever on a notebook'. Shortly thereafter, it became public knowledge that Apple had withdrawn from the electronic industry's environmental rating system, the Electronic Product Environmental Assessment (Epeat) Tool. A significant number of consumers complained and it created the perception, rightly or wrongly, that the MacBook Pro had failed to meet

[97] J. Guiltinan, Op. cit., p 20.
[98] R. Spinks, 'We-re all losers to a gadget industry built on planned obsolescence', *The Guardian,* 23 March 2015, http://theguardian.com/sustainable-business/2015/mar/23/were-are-all-losers-to-gadget-industry-built-on-planned-obsolescence.
[99] A. Rawsthorn, 'The Proper Blend of Beauty and Ethics', *The New York Times, Art & Design*, 22 July 2012, http://nyti.ms/MOwByY.

Epeat's recycling standards. Apple responded to the crisis quickly. A week later, it issued a public apology and announced that it was rejoining Epeat. Thus, Apple did respond to the public's ethical concerns: whether it was to protect its profits and brand or a genuine moral concern or a combination is unknown, but it does demonstrate that there are consumers who value beautiful designs and also care about the planet and that ethical leaders can provide beautiful designs without sacrificing environmental responsibility.

For the most part, planned obsolescence is covert. Articles in business magazines about it are sparse. The concerns around planned obsolescence seem to be mainly restricted to academics and philosophers. The media, particularly the business media, can play a significant part in slowing the trajectory of conspicuous consumption and highlighting the end game.

6.7 Design for Fashion

The case for design for fashion particularly raises the ethical question around the high value many societies place on conspicuous consumption, promoted by business, advertisers and marketers and the willingness of consumers to embrace this value. One of the ways that people express themselves is in how they dress. Tastes change. New clothes and other fashion items temporary uplift a person's mood. These are all human emotions and it would be unrealistic to assume that it is possible to do away with these behavioural patterns. Peoples' values are also a product of their history. It is noteworthy that conspicuous consumption is becoming more and more prevalent in China and other Asian societies that have made the transition from Communism to a capitalist economy where millions of people have been uplifted from poverty to the middle class. I suggest that years and years of deprivation have exacerbated the desire to show society what they have achieved.

Frosch studied the relationship between industrial development and environmental sustainability extensively and came to the conclusion that fashion plays a much more significant role than function in the strategy of planned obsolescence. The drive to introduce novel products as cheaply as possible also plays a significant role. A decrease in functionality is less significant[100].

[100] Frosch (as cited in Chan), 'Planned Obsolescence', *The Harvard Undergraduate Research Journal*, 2013, http://thurj.org/feature/2013/05/4362/.

This has exacerbated the trend towards a throwaway society and the accompanying sustainability problems. The value of fashion relates to a perceived value and therefore a change in value entails a change in people's behaviour and their relationship to products. Perceived value is not all bad as it can result in people choosing more expensive products because they are grown organically or do not originate from countries that employ child labour. In these instances, the functionality is likely to be identical but indicates more socially responsible behaviour. This provides an opportunity for ethical leaders to promote a change in values amongst consumers to support products that do not involve slave labour, create pollution or degrade the environment[101]. If more people choose ethical products, it should reduce the costs over time.

However, I do believe that it is both desirable and possible to moderate the level of over-consumption in the interests of reducing unnecessary waste and thereby freeing up resources for other uses that will benefit society and the planet without significantly compromising people's need to refresh their image and satisfy some of the psychological drivers of human purchasing behaviour.

Design for fashion particularly raises the question of virtue ethics and in terms of Aristotle, what constitutes a flourishing life. Aristotle would regard conspicuous consumption as a wasted life. Virtue ethics also applies to business, as ethical leaders will consider what constitutes a virtuous life and what sort of legacy they want to leave for the next generation. This in turn, feeds directly into the purpose of business being to meet the needs of the current generation without compromising the needs of future generations.

In order to understand design for fashion, it is necessary to briefly consider the history of modern fashion and how society has arrived at an extreme form of over-consumption and to consider the future direction of design for fashion.

Modern fashion is characterised by very rapid changes in shape, material and size. This trend began in the mid 18th century. Changes took place every four years and in some cases annually. It originated amongst the upper classes and over time spread through society down to domestic servants and agricultural workers.

[101] Ibid.

Fashion was closely linked with the aspiration of upward social mobility. Aggressive selling strategies promoted the 'need' for fashion.

Advertising during the Industrial Revolution was aimed at the middle classes i.e. artisans, tradesman, engineers and clerks as the rich always spent lavishly. The increased demand predominantly related to 'non-essential' goods such as toys, buttons and lace. This was most likely due to the middle class having more leisure time and a changing attitude towards children.

Another significant influence on fashion was the development of the modern novel and the emergence of fiction reading. New marketing and distribution techniques were introduced. The romantic novel had a particular influence on fashion as women in particular tended to identify with the heroine and aspired to be like her [102]. This trend accelerated in modern times with the emergence of a celebrity culture. Magazines, social media and other communication channels provided intimate details of the spending habits of the rich and famous. Human nature has remained the same and many people aspire to imitate celebrities by buying the same brands, having the same hairstyles and eating at the same restaurants as their favourite celebrities.

Writers such as North[103] justified conspicuous consumption on the basis that the rich were expected to spend extravagantly as it created patronage, employment and wealth. All other sectors of society were expected to be frugal. The counter argument was a Utilitarian one. Higher consumption would increase production and stimulate the economy. This indicates divergent class values. The rich were associated with idleness, luxury, greed and envy whereas the lower classes were regarded as more virtuous, having qualities such as humility, abstinence and frugality.

Campbell[104] argues that purchase decisions should be rational, rather than based on romance. Advertising links romance to consumption and these are the values of a

[102] C. Campbell, Op. cit.
[103] Ibid.
[104] Ibid.

modern Western society. Whilst this is a nice philosophical idea, people have emotions and their motivations for doing things are complex and cannot be ignored. The most prominent feature of modern consumption is its insatiability[105]. Advertising creates more and more 'wants'. Whilst man's desire to be creative and innovative may be a partial explanation for the ethos around fashion, it does not satisfy current needs more efficiently and feeds conspicuous consumption. This is artificially created through advertising and salesmanship and accordingly can be changed.

7. PLANNED OBSOLESCENCE AND SOME PROBLEMS

7.1 The Problem of Environmental Degradation

In the U.S.A, cellphones manufactured with a life span of five years are disposed of after 18 months. These and other appliances such as televisions are creating unmanageable levels of e-waste. They contain high levels of permanent biological toxins (PBTs), ranging from arsenic antimony, beryllium and cadmium to lead, nickel and zinc. When e-waste is burnt, it releases dangerous pollutants that can have very serious health consequences. When buried, PBTs poisons the ground water over time[106].

The U.S.A has been exporting its discarded electronic products to developing countries but a process is underway to stop this through the enforcement of the United National Basel Convention on the Control of Trans-Boundary Movements of Hazardous Waste and their Disposal.

Most toxins used in electronic products are indestructible. The European Union has understood the seriousness of this and has banned their use by both manufacturers and consumers leading to the development of non-toxic materials for electronic manufacture. Similar legislation initiated in 2004 was not passed. Some legislation limiting the use of non-toxic materials has been passed at the state level but it varies from state to state and no funding has been allocated for electronic waste disposal programmes in the U.S.A.[107]. This increases the responsibility of ethical leaders to take the initiative to limit further environmental degradation and influence the passing of the most responsible legislation.

[105] Ibid. Chapter 3.
[106] G. Slade. Op. cit. Chapter 9: *Cellphones and e-waste*.
[107] Ibid.

Many countries have recognised their environmental responsibility and have developed environmental legislation to address some of the issues. Successful environmental legislation involves widespread stakeholder consultation and involvement to reach consensus over appropriate action plans and ensure buy-in from those charged with the execution of the policies[108]. Canada's experience in obtaining buy-in from government officials proved to be a difficult process but a number of reports were produced in the 1990s following a consultative process. The report produced in 1996 sought to balance scientific innovation, continuity of a strategic plan based on previous reports, meeting the needs of a wide group of stakeholders and presentation of data in a format that would be useful for administrative purposes. The report provided details on the overall state of the environment to Canadians which a survey indicated met 93% of users' expectations.

Canada developed a Green Plan in 1990 with a five-year horizon which committed to providing the necessary resources and action plans for sustainable development. It provided accessible and comprehensive information for governments, business and individuals to make effective decisions in respect of green planning. The Green Plan emphasised that faulty decisions were a key obstacle in ensuring global environmental security, hence accurate, timely and comprehensive research and reporting was key. One of its effective action plans was establishing public private partnerships. These focused on education, skills, practical action and values that demonstrated environmental responsibility. Government benchmarked progress against the original goals and published these findings. They achieved favourable ratings from Canadians in respect of the public expenditure committed to environmental sustainability. A more comprehensive environmental strategy, called the National Sustainable Development Strategy, was developed in 1993. It aimed at encompassing socio-economic and environmental objectives for a wide group of stakeholders. Criticism of the programme related mainly to the difficulty of establishing meaningful measurements, most of which will be very long-term. Comparisons were made with environmental programmes developed in the U.K and the Netherlands which published a number of strategies for sustainable development, biodiversity, climate change and forestry in 1994. These programmes were criticised for being repetitive of previous documents and not really providing

[108] P. Selman, 'Systematic environmental reporting and planning: Some lessons from Canada', *Journal of Environmental Planning & Management*, 1994, Vol. 37 no. 4, http://0-web.b.ebscohost.com.innopac.wits.ac.za.

clear strategic direction. The best reviews were for the revised Dutch National Environment Policy Plan (NEPP2) which was published in 1990. It integrated national plans for transport, energy and land use. It was accepted that the objective was to resolve environmental problems within one generation and that this would provide the Dutch with a competitive advantage rather than limiting economic prosperity[109]. The plan involved a wide range of stakeholders and detailed planning with articulated financial and political objectives. This example demonstrates the benefits of an inclusive stakeholder approach to resolving socio-economic and environmental problems. The Canadian approach, with an emphasis on shared ownership of goals between citizens, the scientific community and decision-makers, promoted consensus on how to address sustainability problems. Other benefits have been transparent operations, which entrenched public trust and a well-functioning partnership, increased knowledge, behaviour changes and more active citizenship[110]. Criticisms have related to the costs and unrealistic expectations.

Many contemporary engineers are concerned about environmental degradation and are embracing 'green design'. Other initiatives that have been implemented include a cost-free take-back, re-use and recycling programme in place at most major American electronic manufacturers such as Hewlett Packard and Dell.

An example of a green initiative that has had unintended consequences is the invention of energy efficient light bulbs. Whilst it has significantly increased the life span of a light bulb, it loses its brightness earlier[111]. The increased longevity is highlighted to consumers but the loss of brightness is not. Whether this is a deliberate trade off of different values or an unintended consequence that only became evident over time and has mostly remained covert still needs to be explored.

In regard to sustainable design, there are trade groups that have adopted sustainable and ethical designs to increase the time between product purchase and replacement. There are also products that are advertised as being environmentally friendly and are manufactured from recyclable goods.

[109] Ibid.
[110] Ibid.
[111] E. Blake, Op. cit.

With continual technological advancement, products can be customised to meet the user's requirements, both in terms of functionality and design which should increase the consumer's attachment to the product and its longevity and de-emphasise conspicuous consumption[112].

In 2000, the World Business Council on Sustainable Development included an action point to encourage consumers to prefer eco-efficient, more sustainable products and services that reduce toxicity, are recyclable and have increased durability. They concluded that many product development engineers and designers endorse sustainable product development and this action point was also consistent with public policy initiatives. However, their report reflected that consumers are generally not concerned with environmental degradation when purchasing upgrades of durable goods and accordingly their objectives could only be successful with the inclusion of consumer and manufacturer incentives[113]. Iver argued that consumers will only change their behaviour if they are given both the practical skills and knowledge to make meaningful choices[114]. However, there does not appear to be sufficient research into this aspect to assist marketers to make meaningful changes[115]. I would argue that both business and consumers need meaningful incentives and penalties that are enforceable to effect these changes.

In 2005, Cooper recommended addressing environmental degradation and wastage by introducing the concept of 'slower consumption'. This entails a reduction in the throughput of resources, not only through increasing product durability but also by improved maintenance, careful use, repair rather than replacing, upgrading and reuse. Cooper referred to earlier research in 1998 that concluded that industrialists and environmentalists recognise the critical importance of extending product durability and product life extension[116]. Cooper concludes that there does not seem to be an accepted link in liberal democracies to associate consumer choice with waste. Cooper refers to research by Donovan and Halpern which concluded that public policy linked increased consumption to human happiness and that public policy has no place in interfering with consumer choice. This would be in line with not

[112] O. Diegal, et al, Op. cit.
[113] J. Guiltinan, Op. cit., p 26.
[114] Iver (as cited in Guitinan), Ibid.
[115] J. Guiltinan, Op. cit., p 27.
[116] T. Cooper, 'Slower Consumption Reflections on Product Life Spans and the "Throwaway Society"', J*ournal of Industrial Ecology*, 2005, vol. 9, no. 1-2.

interfering with people's personal liberty other than to prevent harm. The environmental debate moved from focusing exclusively on the problem of depleting finite resources to a wider, more encompassing concern of addressing both environmental and economic objectives. This transition directly leads to the debate that is so prevalent now of how to deal with economic inequality between advanced and less advanced countries. This ties in with the shift that has taken place from Friedman's argument that a company should only be concerned with making profits to the more prevalent current approach of taking all legitimate stakeholders' interests into consideration. In attempts to address this issue, the British Government's Performance and Innovation Unit (PIU) only addressed the need for resource productivity. This focused on reducing environmental impacts and economic costs through more efficient usage of energy and materials but did not reduce consumption habits. The difficulty most likely related to not having a solution to increase Gross National Product (GNP) without promoting increased consumer spending. This objective of continually increasing GNP appears to be directly at odds with how to protect the environment [117].

Cooper disputes the claim that consumption is the main driver of human happiness and wellbeing. He argues that consumers have a relationship with their possessions, which takes time to develop. This can be capitalised upon by emphasising the benefits of a work-life balance and highlighting the limitations of a short attention span to many things in our fast-moving society. There needs to be a concerted effort to slow the rate of transforming raw materials into products and discarding them shortly thereafter[118]. Slow consumption addresses the pace at which products are consumed by increasing their durability, through better care and careful maintenance. This entails using more efficient resources and materials. Moving from a core strategy of product sales to developing skills focusing on repairs, maintenance and after care service can offset the loss of profits and jobs from reduced demand for new products. This model ensures that reduced materials and energy throughput arising from eco-efficiency is not offset by increased consumption and meets both the needs of eco-efficiency and sustainability.

[117] Ibid. p 53.
[118] Ibid. p 54.

This model requires a shift in thinking from continually focusing on increasing earnings through sales to sustainable life-cycle thinking. Life cycle thinking requires measuring the environmental impact from raw materials extraction, manufacturing, distribution, use and responsible disposal. This model has been used in various countries for policy options. It has complexities in determining standards of measurement for use, Eco labeling and which types of impacts should receive priority. For example, a study of washing machines for the U.K Ecolabelling Board concluded that 90% of the impact was in the use phase rather than in production, distribution and disposal, which suggested that improved energy efficiency use should be prioritised over life span considerations. This study did not include the impact of raw material extraction. A further complication is that the sourcing of raw materials in one country may reduce environmental impacts in other countries and simultaneously reduce export earnings. A further problem identified is the reliability of data. The methodology for measuring a life span would need to be transparent, accurate and uniform[119].

Another consideration is the connection between design for durability and technological advancement that reduces other environmental impacts. Some manufacturers have reduced water and energy consumption and increased recycled materials but have not improved product durability[120]. The argument here is that increased durability would reduce energy efficiency. On the other hand, delaying a purchase may allow for more time for innovations to develop and the new product, when available, may be more energy efficient.

Some countries have introduced extended product responsibility such as the European Union which has made manufacturers responsible for discarded items under the Waste Electrical and Electronic Equipment Directive and the End-of-Life Vehicle Directive introduced in the 1990s[121]. This has raised some awareness amongst manufacturers to track the entire life span of a product. As technology becomes more sophisticated, manufacturers are able to obtain more data to reliably anticipate product or component failures, user behaviour and options to reuse parts at the end of a product life span.

[119] Ibid. pp 56-57.
[120] Ibid. p 57.
[121] Ibid. p 58.

Another possibility is for manufacturers to lease products rather than sell them. This would secure ongoing annuities. This is already prevalent in the motor vehicle industry but there is scope to introduce this model to other products. However, as mentioned earlier in this research report, the company would need to introduce other revenue streams to offset possible lower profits.

Cooper refers to research that indicates that consumers and consumer organisations do not factor in the cost of repairs, energy consumption and end-of-life disposal when purchasing products. I suggest that the reason is that this information is only partially available and, in many cases may not be available at all.

From the above, it is clear that reliable data needs to be collated and made widely available. Public awareness needs to be increased, both at the manufacturing level and the consumer level, regarding the implications of the costs and environmental ramifications of the whole product life cycle.

In this light, Cooper notes that research which has be undertaken in respect of product life spans has been limited. He recommends that more research be done to establish the connection between all the different elements in the life cycle of a product, including consumer motivation for choosing one product over another and the relative importance of economic, technological and psychological influences on planned obsolescence [122]. He concludes that life-cycle thinking is critical for designers, manufacturers and consumers to respond meaningfully to the challenge of sustainable consumption. Finally, he advocates for the introduction of legislation to promote the design of more durable products and inducements for owners to take good care of products and provide marketing incentives for longer-lasting products[123].

A more recent research report in *The Guardian* in March 2015 for the German environment agency could not find conclusive proof of companies intentionally shortening the life span of products but did conclude that a significant proportion of large household appliance needed to be replaced within five years of purchase due

[122] Ibid. p 64.
[123] Ibid.

to a defect. This had increased from 3,5% in 2004 to 8,3% in 2012[124]. The same report concluded that a third of all replacement purchases for household appliances were motivated by a desire for a better appliance whilst the old one was still in good working order. In respect of televisions, the proportion rose to 60 percent. The European Union is also working on regulating the inefficient use of resources in products, with particular attention to establishing an Ecodesign Directive which will set mandatory standards for energy efficiency in more than 40 types of products. It is anticipated that future changes to the directive will include standards for durability and reparability to address these issues.

Environmentally-friendly decisions often involve a trade-off between various socio-economic objectives and values, for example, environmentally friendly materials may be more expensive. However, this may be compensated by recycling other materials, use of solar energy to reduce fixed costs and pooling resources for responsible disposal of e-waste. Public policy and consumer and business interest groups have an important role to play in the direction of policy initiatives that drive environmentally responsible programmes. Product 'take-back' laws are under discussion in many parts of Europe and East Asia and endeavours to legislate this have taken place in most States of the United States[125]. Whilst Apple itself does not operate in Africa, the iStore in South Africa, which sells exclusively Apple products, does not trade-in products. Discussions by the writer with the technical staff at the iStore, Sandown Drive, Sandton, revealed that it is under discussion but there is no time-frame. In addition, the iStore advised the writer that the new MacBook Air and MacBook Pro are designed so that upgrades are almost as expensive as replacing the product.

The changes at Apple to improve its environmental record appear to be more reactive than proactive. In 2013 Apple appointed an environmental policymaker to its executive team who reports directly to the Chief Executive Officer. This appears to be in response to a number of negative environmental reports that have impacted its reputation. In 2006, Greenpeace ranked Apple at the bottom of its Guide to Greener Electronics report. It has annually reported on environmentally problematic issues at Apple such as its reliance on coal to power its services, the use of toxic

[124] The Guardian, 'The Life Span of Consumer Electronics is Getting shorter, study finds', 2015, www.theguardian.com/environment/20015/mar/03/lifespan-of-consumer-electronics-is-getting-shorter-study-finds.
[125] J. Guiltinan, Op. cit.

components within the iPhone and other products. One of its suppliers in China polluted a river so badly that it turned milk-white[126]. Apple has taken the criticisms seriously and now focuses on the material used in the design, the supply chain, packaging and energy efficiency. Greenpeace now rates Apple, Google and Facebook as the three cleanest datacentre operators in the world, giving Apple AAA and B for transparency, policy, advocacy and efficiency respectively. It also noted that Apple has reached a 100 percent clean energy index. Hiner in the aforesaid Price article comments that these changes are perfect timing for a company where so much of the sales of its products are tied to its brand image. People like to do business with brands that they trust. 'According to KPMG research from December 2013, 70% of United States consumers under 30 years old now contemplate social issues before they make a purchase. This makes the timing of Cook's changes in corporate responsibility very important'[127]. However, the magnitude of Apple as a global brand gives it both a responsibility and a duty to influence policy debates and the resulting environmental legislation. If done responsibly, their efforts, together with other global players, can influence businesses, marketing strategists and consumer behaviour. All stakeholders need incentives to make appropriate changes.

I believe that business has a responsibility to guide values for the better and if business does not address the problems of e-waste, pressure from consumers and other interest groups will force their hand. It is preferable to be in control of your own destiny and seek to obtain the best results for the company and key stakeholders than to be reactive and settle for greater and perhaps less beneficial compromises. Companies that actively take charge of their destinies are more likely to be successful than those that are forced to make compromises for special interest groups that may or may not have the company's best interests at heart.

7.2 The Problem of Technological Obsolescence

Guiltinan notes that there is insufficient research of consumer decision-making in relation to technological obsolescence but it appears that technological obsolescence and fashion obsolescence are stronger drivers of replacement than physical obsolescence[128]. Social approval, fashion in luxury utilitarian goods and

[126] D. Price, 'Green Apple: Why Apple was bad for the environment (and why that's changing'), *Macworld*, 2014, http://www.macworld.co.uk/news/apple/why-apple-was-bad-environment-why-changing-green-3450263/.
[127] Ibid.
[128] J. Guiltinan, Op. cit., p 22.

value-expressive goods appear to be consumer motivators. Frequent upgrades create the perception by consumers that their existing product is obsolete, irrespective of the level of quality of enhancement[129]. Durability does not play a key role. However, warranties are perceived to indicate that the product has a high value and a product with a warranty is able to attract a higher price than a product without a warranty. A retail study of TVs purchased concluded that warranty information still trailed behind picture quality, brand name, price and picture size as factors in a purchase decision[130]. Environmental considerations appear to be limited to a niche section of the population. This appears to be partially because consumers believe environmental responsibility is the manufacturer's responsibility and that the consumer has little influence over this[131].

The costs of environmental sustainability to the consumer and society may exceed the value of the innovation and technological improvements. The more frequent the upgrades, the more e-waste is created and the associated problems. The responsibility should be shared between design engineers, product developers and management. They gain financially at the expense of consumer welfare and the environment. Frequent upgrades with minimal functional enhancements mislead consumers and entrench unethical values both by the company and consumers who buy-in to this value system. As people have free will, consumers also carry some responsibility for buying products prematurely and being part of the value system that creates unnecessary e-waste. New products can cause significant e-waste even when there are significant functional enhancements such as a change over from analogue to digital TV if the disposal of the old TV is not undertaken in an environmentally responsible way. All players in the value chain, from the designers and engineers of the component parts, managers approving the decisions, marketing and business strategists and the consumer, carry ethical responsibility for the consequences of their choices and actions.

Technological obsolescence need not impede progress but the business model should change from purely a profit model to taking into account consumer welfare and the preservation of the environment. This can also alleviate the problem of employment obsolescence. A possible solution is to develop a competitive

[129] Ibid.
[130] Ibid. p 23.
[131] Ibid.

advantage such as customer satisfaction, environmental friendliness and long-term durability[132]. This means quantifying the cost of e-waste into the product as well as the benefits of recycling materials and other sustainable practices. The World Business Council for Sustainable Development (a CEO-led global association of 200 companies) in 2000 did not include extending product durability on their list of eco-efficient practices as they believed that frequent repeat purchases improved profits and employment[133]. This indicates an enormous amount of work to be done to achieve a holistic approach that will be accepted by business as the norm.

7.3 The Problem of Employment Obsolescence

Ethical leaders need to create services and products that reflect high ethical values, environmental responsibility and pleasing designs based on the inclusive stakeholder model. Rawsthorn[134] gives some examples of successful companies that have achieved this through focusing on employment creation in businesses where relationships are important, using eco-designs and involving the local community both in terms of providing employment opportunities and providing discounts to the locals. One successful example is Barking Bathhouse established in East London, London. This was an economically depressed area. The Spa was financed by the Create Arts programme and built on the site of a derelict pub. Local residents provide all treatments and local residents receive discounts. The food at the bar is made from produce grown locally and treatment products are all made from local products. Recycled materials were used wherever possible for the building and second-hard furniture was purchased. To save energy, the sauna and ice room were heavily insulated. Computers will never be able to replace the human touch,[135] which suggests the business idea has some sustainability.

7.4 The Problem of Conspicuous Consumption

There is great resistance to slower consumption in relation to clothing as consumers generally want to be fashionable which means purchasing new fashionable clothing items every season. Durability is generally not a consideration. If a consumer buys a fashionable item that is cheap, the consumer is not particularly concerned whether

[132] Ibid. p 24.
[133] Ibid.
[134] A. Rawsthorn, Op. cit.
[135] J. McKean, *Customers are People...the Human Touch,* London, John Wiley & Sons, 2003.

it lasts one or two seasons and does not consider what happens to the item after throwing it away[136]. Cooper refers to research which indicates that the older generation used their sewing machines to make clothes, the younger generation prefer to buy them as it is much cheaper, reflecting our faster, throw-away culture.

Expectations of the life spans of electronics and small appliances have also reduced over the years. The general consensus amongst consumers was that electronics and small appliances would last less than five years and five to ten years for large appliances[137]. Cooper also refers to research that indicates that consumers are generally prepared to spend approximately 20% of the replacement price on repairs for large and small appliances whereas the cost of repairs is generally much higher[138].

Users are not necessarily rational when purchasing items for fashion or social status. The convenience of disposability may be stronger than life span considerations. A disposable product may be cheaper and more affordable and the consumer does not necessarily think about what happens to the product after he or she has thrown it away.

8. PLANNED OBSOLESCENCE, SUSTAINABILITY AND THE WAY FORWARD

The world changes one person at a time. The inclusive stakeholder model is executed through the concept of integrated thinking and integrated reporting which was started in South Africa with Mervyn King and the King Committee[139] and today it is an accepted way of doing business in most Western democracies, but mainly at the listed level, public companies and large private companies. This trend needs to accelerate and become more entrenched in business, from listed companies, state-owned companies, private companies and non-profit organisations. The narrative in their integrated reports needs to provide a compelling story so that other companies, not yet initiated into this process, see and understand the value of the inclusive

[136] T. Cooper, 'Product Longevity', 2012, Network Conference on Product Life Extension: Knowledge Transfer between Clothing and Consumer Electronics, Oslo, 27-28 March 2012.
[137] Ibid.
[138] Ibid.
[139] N. Rowbottom, and J. Locke, 'The emergence of integrated reporting', *Accounting and Business Research,* 2016, vol 46, no. 1 pp 83-115.

stakeholder model. King IV, due for release in the second half of 2016, is spearheading this initiative. The advantage of King IV taking the initiative is that it has the international gravitas to be taken seriously, both as a collective body and because of the calibre of people on the King Committee.

Inclusive stakeholder engagement can make a significant contribution to improving the quality of people's lives. Those with positional power and influence, in government and the private sector, need to listen to the needs and legitimate expectations of the people they serve, since people live in communities and communities make up a society, which is now globally connected through technological developments. Hence, the impact of business, primarily through the leadership of ethical companies, has a profound effect on society. Failure to take note of stakeholders is evidenced in the recent student riots in South Africa, ostensibly about high university fees but in reality about much more. It is about citizens feeling let down, that their expectations, hopes and dreams have not and will not be fulfilled. The rise of terrorism around the world is similarly caused by people in power not listening to the vulnerable and exploiting both the vulnerable and the middle-class which is not part of the ideology of those in power, both in government and its counterparts in business. The unacceptable income inequality between the super-rich, the middle class and the poor, which continues to grow wider and wider, if not addressed by listening to peoples' anger and responding appropriately, will have devastating consequences for society in general. Accordingly, for a flourishing society, there is no alternative but to listen to key stakeholders and respond appropriately. It will benefit companies and uplift society on all levels and align the companies' interests with their stakeholders.

The overarching theme of applying ethical leadership within the inclusive stakeholder model is to demonstrate that the interests of the company are the centre of the debate. This means taking into account the legitimate interests of key stakeholders, protecting the environment and ensuring the long-term sustainability of companies. It means creating trust and credibility that what the values that a company says it stands for are indeed the values that it demonstrates in its daily activities and decisions and these values are integrated into the corporate culture. The Global Responsibility Initiative (G4) provides internationally accepted guidelines and

standards as to how to achieve this[140]. An alternate model is the principle-based International Reporting Framework[141].

Crucial to the sustainability of companies is ethical leadership and investing in innovation, research and development. This not only facilitates creative destruction, providing the opportunity to improve peoples' lives, but is also an opportunity to creatively deal with income inequality, degradation of the environment, employment obsolescence and all the other ills facing society.

More attention needs to be paid to durability, flexibility, adaptability to evolving technology through the whole life span of the product from the design phase through production, use and disposal phases to create more sustainable business models.

Marketing strategies need to change fundamentally to promote longer life spans and sustainability by focusing on issues such as resale value, reliability, adaptability of a product, and emphasise upgradeable features. Resistance to shrinkage, fading and strong stitching could be emphasised to encourage longer use of clothing. Promoting classic lines and comfort may promote an emotional attachment to clothes for the older generation but would require more innovative marketing to sell the idea to the younger generation.

Legislation needs to be aligned to sustainability goals. Repairs need to be cheaper than replacement. Retailers need to take some responsibility for educating consumers on the importance of sustainability and strong penalties should be in place and enforced where products are disposed of carelessly or irresponsibly, creating toxic waste. Recycling should be made easy for consumers to comply.

Incentives should be put in place for sustainable business models that encourage reuse over replacement, rental over purchase and sharing such as greater use of affordable public transport. Environmental legislation covering the whole product life cycle also needs to be developed, enforced and focused on slower consumption and environmental protection. This is already evident in new housing and office

[140] GRI, *GRI standards and reporting, n.d.,*www.globalreporting.org/Pages/default.aspx (accessed).
[141] IIRC, *The International<<IR>>framework,* 2013*,* www.intgratedreporting/wp/content/uploads/2013/12/13-12-08-THE-INTERNATIONAL-IR-FRAMEWORK-2-1.pdf .

developments in South Africa where self-sufficiency in electricity and water and environmentally-friendly designs are proving popular at the higher end of the market. Having argued that the inclusive stakeholder model and a holistic approach to sustainability practices is the key to a flourishing society, initiated to a large extent by ethical leaders and supported by an enabling legal framework, the way forward to address technological obsolescence is much more difficult. The reason is that whilst there are many ethical leaders in business doing many commendable things, the only people taking up the challenge of raising the issues relating to technological obsolescence are journalists and philosophers. There does not appear to be any evidence of big business having any awareness of the unethical components of planned obsolescence or where they do, there is no intention of changing these practices.

Whilst many businesses implement environmentally friendly solutions, such as Apple detailed above, there is no public acknowledgement of its planned obsolescence practices. As previously mentioned, Apple seems to respond to consumer pressure on environmental issues but there is no significant movement pressuring them or other high profile companies to address planned obsolescence.

The way forward has to start with awareness, initiated by people with power, influence and gravitas. As it is not going to come from business, the media and other interest groups, such as the Institute of Ethics South Africa, consumers and other affected stakeholders, need to start a concerted public awareness campaign to exert pressure on business so that they will see that it is in their long-term interests to address the negative consequences of planned obsolescence. To be successful, the approach will have to show the benefit to companies. By changing its business model, as detailed above, to core strategies of repairs and after-sales service rather than frequent product replacement, I believe that a strong case can be made to ethical leaders to understand that planned obsolescence is not congruent with their values and threatens long-term sustainability of the planet which will directly impact their own sustainability and negatively impact the quality of life of future generations.

The Tata Group, as mentioned above, has a marvelous ethical record in many areas, but the motor vehicle manufacturing industry is deeply entrenched in planned obsolescence practices. This industry would be a good start to make a case that

planned obsolescence strategies do not fit in with their values that they espouse and generally live by.

The recent high profile Volkswagen emissions scandal has caused significant damage to Volkswagen's reputation and share price[142]. It remains to be seen whether it will recover to being the most popular motor vehicle brand on the market. As a result of a deliberate strategy to dupe consumers, Volkswagen has been forced to examine its ethics and business practices and take significant measures to endeavour to re-establish trust with its stakeholders. This is an ideal opportunity for stakeholders, whether they are consumers, the media or institutional investors, to make the case to Volkswagen and the public that it should also re-examine its planned obsolescence strategies. This would show that Volkswagen has gone beyond just repairing a damaged reputation and demonstrate that it would like to be a leader in ethical practices of the future. I believe that such an initiative could start pressure on other companies to follow suit. Institutional investors can exert great influence on the future of Volkswagen but they too would need to be persuaded that it is also in their best interests to address planned obsolescence. It is likely that institutional investors will only react once consumers, the media and other activist groups have made the case. Only if institutional investors believe that not addressing planned obsolescence will negatively impact the share price are they likely to take up this cause.

As a starting point, Johannesburg Stock Exchange Limited listed companies that have high profiles and provide impressive integrated reports should be challenged to show congruence of their values with their business practices.

Planned obsolescence is deeply embedded in the cellphone industry. The recent fine imposed on MTN of approximately R74 billion for not deactivating about 5,2 million unregistered simcards, despite repeated warnings from the Nigerian Communications Commission, is an opportunity for stakeholders to leverage other gains beyond just compliance with legislation[143]. This example reflects the disconnect between the company's values and its practices. In its integrated report,

[142] A. Tovey, *Diesel scandal will wipe out VW for at least two years,* The Telegraph, 17 October 2015, http://telegraph.co.uk/finance/newsbysector/industry/engineering/11917034/Diesel-scandal-will-wipe-out-VW-for-at-least-two-years.html.

[143] 'Nigeria's $5,2bn fine against MTN is world's largest' 10 November 2015, *Fin24Tech*. http://www.fin24.com/Tech/News/nigerias-52bn-fine-against-mtn-is-worlds-largest-20151120.

MTN lists as a material issue in its operating environment, regulatory considerations and unpredictable tax laws and regulations[144]. It highlights 'adverse regulatory changes or non-compliance with laws and regulations' as its number three material risk. It details a number of risk mitigating strategies to address this, namely: engaging with authorities, monitoring compliance with the regulatory framework and regularly reviewing risk mitigation strategies. Media reports indicate that MTN was already in negotiations with the Nigerian Communications Commission and had already started taking steps to deactivate the unregistered users when the fine was imposed. This makes it clear that MTN was very aware of what it had done wrong and had not taken the necessary steps timeously to prevent the regulatory breach in line with its own standards of conduct and operating procedures. The appointment of Phuthuma Nhleko, the former Chief Executive Officer of MTN, as Acting Executive Chairman, specifically mandated to deal with the regulatory crisis, indicates that MTN has now taken the matter seriously. However, an ethical leader would have ensured that there was congruence between the company's values and strategies and accordingly this serious level of non-compliance with the law would have been unlikely.

MTN Group Limited won a merit award for its integrated report in the 2014 Integrated Reporting Awards conducted by the JSE Limited and Chartered Secretaries Southern Africa which demonstrates a serious disconnect between its values and practices[145]. The devastating consequences for MTN of not living up to its values could very well threaten its long-term sustainability. This further indicates the disconnection between its values and its operational practices. Its share price plummeted 26% since the announcement of the fine on 23 October 2015 against the JSE All Share index declining 2,5% over the same period[146]. Depending on how the matter is settled and how long it takes to reach a settlement satisfactory to MTN and the Nigerian authorities, will determine how long it will take for MTN to recover, both in terms of its share price and its reputation. Having experienced the devastating effects of not behaving ethically, they would benefit by examining their planned obsolescence practices and start changing them. Even if they did this mainly to

[144] MTN, 2013 *MTN Group Limited Integrated Report for the year ended 31 December 2013,* http://mtn-investor.com/mtnar2013/det-risk.php.
[145] Chartered Secretaries Southern Africa, *Integrated Reporting awards: complete list of previous winners,* 2016, http://www.chartsec.co.za/index.php?option=com_content&view=article&id=257&itemid=344.
[146] S. Nkabinde, *MTN Zakhele plummets on JSE debut,* 2015, http://www.techcentral.co.za/mtn-zakhele-plummets-on-jse-debut/61121/.

rescue the damage to their reputation, it would still be worthwhile. A deeper change in values in line with virtue ethics may come later.

As it is unlikely that many institutional investors are convinced at this stage that it is in their best interests to facilitate companies dismantling planned obsolescence practices, it will initially be left to the media, consumers and activists groups with a high profile and influence to tackle planned obsolescence. Theo Botha, South Africa's most well-known shareholder activist, would probably be an influential person to initiate a public conversation on planned obsolescence practices that would hopefully lead to actual changes over time. However, as it is not something that to date he has raised at any of the numerous annual general meetings he attends, other stakeholders would need to lobby him and provide a convincing case as to why he should address planned obsolescence as a serious ethical issue first privately with executive management and if there is no satisfactory response, then publicly at annual general meetings. This would be in line with his general activist focus that concentrates on shortcomings in environmental, social and governance issues.

Job creation in the 21st century primarily comes from small businesses. This makes it incumbent on big business, and in turn ethical leaders, to promote small businesses. The Broad-Based Black Economic Empowerment Codes of Good Practice 2015 have legislated business to support corporate social investment and procurement practices to uplift the vulnerable and grow small businesses[147]. The success or otherwise of this is a debate outside the parameters of this research. However, what this demonstrates is that if business does not address unemployment, whether from technological obsolescence or otherwise, the matter will be taken out of its hands, either by legislators or the unemployed themselves or both. For business to be sustainable, it needs to be in charge of its own destiny. Only by listening to its stakeholders and being proactive can companies stave off the rise of stakeholder activism driving its strategy and agenda.

Ethical leaders should anticipate when a specific job or a category of jobs is going to become obsolete and should start planning for it sufficiently in advance by training

[147] The dti, *The revised broad-based black economic empowerment codes of good practice*, 2015, https://www.thedti.gov.za/economic_empowerment/bee_codes.jsp

affected staff members to acquire new skills to take advantage of the next wave of technological advances. Where this is not possible, management and the affected staff members should brain storm where they can create new jobs that will attract new revenue streams for themselves and new small business owners. An example of this would be when technological advances made data analytics available so that companies could more accurately determine the impact of their marketing strategies. It provided an opportunity for businesses to re-examine their business practices and eliminate inefficiencies. Using analytics, Times Media Limited's Media division discovered that its sales staff were selling newspaper subscriptions in areas where the cost of delivery was more than the sale price of the newspaper, mainly due to the low volumes in those areas[148]. Accordingly, it 'sold' those routes to the drivers and assisted them in starting their own distribution businesses, with a percentage of the revenue reverting back to Times Media. That was a win-win outcome.

The current labour unrest in the mining industry has resulted in many mining companies choosing to mechanise and eliminate many labour intensive jobs. The two sides are intractable in their positions, which is further hampered by restrictive labour legislation. However, a creative and ethical leader could choose to work within these constraints to create a win-win outcome rather than entrenching the current divisions and creating further unemployment. A possible ethical outcome would be to assist the workers with training to either become part of the team that manufactures the new mining equipment or acquire the skills to maintain and service the equipment that has replaced manual labour. Perhaps the increased demand for mining equipment could turn around the ailing industry to such an extent that it would make financial sense to lend the previous miners sufficient capital to start their own manufacturing plant to supply the mines with mining equipment or transport facilities or other services required by mines. Many mines are located in remote area with limited facilities. Some creative thinking and a genuine willingness of all parties to find an ethical solution could fulfill the company's mandate to implement its ethical values and ensure employment for workers who could have joined the ranks of the permanently unemployed. This scenario would grow the economy. More jobs, support for more local industries and a general upliftment and increment in skills treats all affected stakeholders with dignity and gives them control over their destiny.

[148] Author's attendance at Times Media Limited's Management Committee meetings, circa 2009.

Reverting to the McDonalds totally run by robots, other than a small supervisory staff, a creative win-win solution could also be found here by the various stakeholders expressing their needs and expectations and being committed to finding solutions for job losses. One possible solution is to understand the changing nature of shopping habits. The era of big shopping centres is slowly declining as a result of consumers becoming more comfortable with online shopping. This has resulted in big shopping centres having to rethink the 'shopping experience' to cater for a change in consumer needs. If it does not adapt to the new reality, landlords will be left with substantial excess retail space. Retailers that have recognised this trend are moving their franchised shops out of petrol stations to small shopping malls in high-density areas and redesigning the mall experience as more of an entertainment destination than a shopping experience. Perhaps McDonalds could be instrumental in providing the seed capital to those employees who have lost their jobs to start smaller versions of McDonalds on a franchise basis with a limited menu in kiosks around industrial areas where there are few restaurants and take-away outlets. McDonalds would need to provide training in financial management, marketing and all the other skills that an entrepreneur would need to be successful. If done thoughtfully and with commitment by all parties, it could increase McDonald's earnings through the accepted franchise revenue sharing arrangement, give the new franchise owners a sense of purpose and pride in successfully running their own businesses, create employment and increase consumer spending.

9. SOME OBJECTIONS AND RESPONSES

Rejection of the inclusive stakeholder model can be argued through an endorsement of Friedman's belief that a company has only one obligation and that is to make profits for the shareholders within the law and ethical custom. This is premised on the fact that shareholders, as the providers of capital, carry the greater portion of the risk and should therefore be able to receive the greatest reward. However, this argument does not take into account the negative impact of a company's activities in generating these profits. An argument can be made that companies only operate in their self-interest and social, economic and environmental issues are problems for government to solve through appropriate legislation. I agree that companies act out of self-interest. However, in the current global environment it is not possible for a company to act in isolation and ignore the impact of its actions and activities on its

stakeholders. The ramifications of not taking into account the legitimate interests and expectations of stakeholders will in time negatively impact the company. Through technology and in particular, the rapid dissemination of information, stakeholders have many channels to get their voices heard when they are dissatisfied. It is preferable for a company to remain in charge of its destiny and this is more likely if it does take into account the legitimate interests and expectations of stakeholders. Furthermore, various stakeholders may have specialised knowledge or be closer to operational matters giving them insight to challenges to which management may not be privy. The inclusive stakeholder model is an ethical framework for companies to act in their self-interest as well as to respond to the legitimate needs and expectations of relevant stakeholders. It provides an opportunity for all stakeholders to live with dignity and lead a life of well-being.

An argument can be made that planned obsolescence retains jobs through providing a continuous market for goods and that extending the life of products would lead to lower consumption and lower GDP growth and society would be poorer. I have argued that such an approach is unilateral and only in the interests of the shareholders and the supply side of the transaction. Consumers, the local communities, the environment and the long-term sustainability of a business are not taken into account. A unilateral approach cultivates greed, selfishness and uses others as a mere means to an end; all examples that do not constitute a virtuous life but in fact reflect a wasted life as defined by Aristotle. Kantian ethics seem to provide us with robust guidelines for business as a moral community and these ideas have been expanded upon in the inclusive stakeholder model and the Integrated Reporting Framework. When looking at the whole life cycle of services and products, the negative impacts at various stages become evident and cannot be ignored. Creative destruction will render many jobs and industries obsolete and simultaneously create new jobs and industries. It is incumbent upon companies to demonstrate ethical leadership by assisting affected persons to transition to a new business environment. It they do not, it will impact the company in many ways, not perhaps in the short-term, but certainly in the long-term. Fewer jobs means less spending money, which means fewer products and services will be sold. Hence, it is in the best interests of a company to be part of the process of creating new jobs and industries to keep people employed who then have money for purchases and which will consequently, uplift their lives in general.

Furthermore, an argument can be made that protecting the environment and dealing with the problem of finite natural resources is a social problem and not the business of companies. Companies should focus on their strengths and core competences. Environmental and social problems are the domain of government. I have argued that environmental degradation and e-waste are created to a large extent by the activities of a company and accordingly, a company is accountable for the consequences of its actions. This principle is in line with law that makes people and juristic persons accountable for their actions. Whether or not addressing environmental degradation and the problem of finite resources is addressed in law, ethical leaders have a responsibility to respond to these problems. They are the custodians of company assets and if they do not deal with these problems, future generations will see the quality of their lives severely impacted. More decisions are required in response to moral issues than legal issues and adhering only to the law is not sufficient for ethical leaders.

Another argument is that the impact of planned obsolescence cannot be reliably quantified and hence it is not possible to determine whether the negative consequences outweigh the positive consequences. I would argue that at this stage certain aspects can be measured and further research should be undertaken to refine these measurements and quantify those elements that have not been satisfactorily quantified to date. Lack of measurement does not absolve ethical leaders from responsibility and accountability for the consequences of decisions they take as custodians of companies.

It can also be argued that consumers are willing participants in the strategies of planned obsolescence and they seldom raise the issue as being problematic. The point is that if strategies of planned obsolescence constitute significant problems for consumers, they would be more vocal about it. I have argued that planned obsolescence is for the most part so pervasive and covert that consumers are largely unaware of its negative impact and without sufficient information, are not in a position to raise objections. Moreover, if they do, they are likely to be met with resistance by companies powerful enough to ignore their protests.

A final objection and which is related to the last one that can be raised is that (a) consumers are willing participants in conspicuous consumption and they get a great

deal of pleasure out of frequent shopping; and (b) conspicuous consumption boosts jobs and grows the economy. I have argued that conspicuous consumption is not a value that cultivates a virtuous character and accordingly it is incumbent upon ethical leaders, particularly those that demonstrate ethical values in other areas of their business, to be consistent in their values and address the negative outcomes of planned obsolescence in a responsible and sustainable manner.

10. CONCLUSION

In this research report, I have argued that Friedman's proposition that a company has only one responsibility and that is to make profits for shareholders within the law and ethical custom is not an ethical response to the effects of a company's activities on its stakeholders. I have also argued that the inclusive stakeholder approach which puts the best interests of the company at the centre of the debate, is the most ethical business model to follow. It takes into account the legitimate interests and expectations of relevant stakeholders and focuses on meeting the needs of society today without compromising the needs of future generations.

I have detailed several categories of planned obsolescence. At the one extreme is creative destruction which is a natural business cycle in a democratic society. Innovation and progress cannot be constrained but strategies can be put in place to create a 'win-win' outcome for all stakeholders affected by the process such as providing alternative employment for those who lose their jobs and training and education to be suitably equipped for the new jobs and industries emanating from the creative destruction process. At the other extreme is design for limited repair and design with a limited functional life span. These two categories have the least ethical justification. The other categories: design changes that lead to reduced psychological satisfaction, design for functional enhancement through adding or upgrading product features and design for fashion have both negative and positive outcomes. Ethical leaders need to examine these practices and capitalise on ethical outcomes and minimise or eliminate the harm caused. Ethical leaders have a responsibility to behave ethically in all aspects of their business not just those that are enforced by law or public pressure or are convenient to adhere to. This means that where there are negative outputs and outcomes from their activities such as e-waste, a rapid depletion of finite natural resources or job losses, ethical leaders have

to respond to these challenges to ensure the sustainability of their companies, the society in which they live and the planet.

REFERENCES

All Wired 10.03, 'The Father of Creative Destruction, 2002.

ASX Corporate Governance Council, 2014, *Corporate Governance Principles and* Recommendations, 3rd Edn, http://www.asx.com.au/documents/asx-compliance/cgc-principles-and-recommendations-3rd-edn.pdf.

Beauchamp T., 'The Principle of Beneficence in applied Ethics' *The Stanford Encyclopedia of Philosophy,* 2013, E. N. Zalta (ed.), http://plato.stanford.edu/archives/win2013/entries/principle-beneficence/ .

Blake, E., 2012, *Help! My Toaster's Broken*, *A Short Story of How We Are All Victims of Something Called Planned Obsolescence*, 2012, ericblakebooks.blogspot.com.

Bowie, N.E., 'A Kantian Approach to Business Ethics' in Robert Frederick, (ed.), *A Companion to Business Ethics,* Oxford, Blackwell Publishers, 1999.

Bulow, J., 'An Economic Theory of Planned Obsolescence', *The Quarterly Journal of Economics*, vol .101 no. 4, 1986 pp 729-749.

Campbell, C., *The Romantic Ethic and the Spirit of Modern Consumerism*, 3rd edition, London, Alcuin Academics, 2005, kindle 978-1-78018-002-1.

Chan, A., 'Planned Obsolescence', *The Harvard Undergraduate Research Journal/Planned Obsolescence',* 2013, http://thurj.org/feature/2013/05/4362/.

Chartered Secretaries Southern Africa, *Integrated Reporting awards: complete list of previous winners,* 2016, http://www.chartsec.co.za/index.php?option=com_content&view=article&id=257&itemid=344.

Cooper, T., 'Slower Consumption Reflections on Product Life Spans and the "Throwaway Society"', *Journal of Industrial Ecology*, Massachusetts Institute of Technology and Yale University, 2005, Vol. 9, no 1-2, http://mitpress.mit.edu/jie.

Corporate Governance Council, *Corporate Governance Principles and* Recommendations, 2014, 3rdedn., ASX, 2014, http://www.asx.com.au/documents/asx-compliance/cgc-principles-and-recommendations-3rd-edn.pdf.

Cox, W.M. and Alm, R., 2008, 'Creative Destruction', *Library of Economics and Liberty, The Concise Encyclopedia of Economics*, 2nd edn., Liberty Fund Inc, 2008, http://www.econlib.org/library/Enc/CreativeDestruction.html.

Diegal O, Singamneni, S., Reay, S., & Withell, A.' Tools for Sustainable Product Design: Additive Manufacturing', *Journal of Sustainable Development*, Vol. 3, No 3, Centre for Rapid Product Development, 2010, vol. 3, no. 3.

Delport, P., *Henochsberg on the Companies Act 71 of 2008*, Durban, Lexis Nexis, 2012.

Eskom, 'COP17 fact sheet,' *MEA negotiations,* No date http://www.eskom.co.za/AboutElectricity/FactsFigures/Documents/Help_for_Multilateral_Environmental_Agreements_for_Negotiators.pdf.

Fin24Tech., 'Nigeria's $5,2bn fine against MTN is world's largest', 10 November 2015, http://www.fin24.com/Tech/News/nigerias-52bn-fine-against-mtn-is-worlds-largest-20151120.

Friedman, M., 'The Social Responsibility of Business is to Increase Its Profits, Part One Ethical Theories and Approaches*',* 1970, pp 225-229.

GRI., *GRI standards and reporting*, No date, www.globalreporting.org/Pages/default.aspx.

Goodpaster, K.E., 'Business Ethics and Stakeholder Analysis', *Business Ethics Quarterly*, 1991, vol. 1 no. 1, pp 53-73.

Guiltinan, J., 'Creative Destruction and Destructive Creations: Environmental Ethics and Planned Obsolescence', *Journal of Business Ethics,* 2009, vol 89, pp 19-28.

Grey, C.G.P., 'Humans Need Not Apply', 2014, www.youtube.com/watch?v+7Pq-5557XQU.

Hong. S., *China's Plan for Local Debt Amounts to a Bailout,* 'The Wall Street Journal', 2015, http://www.wsj.com./articles/chinas-plan-for-lcoal-debt-amounts-to-a-bailout-1434998702.

IIRC., *The International <<IR>> framework, 2013,* www.intgratedreporting/wp/content/uploads/2013/12/13-12-08-THE-INTERNATIONAL-IR-FRAMEWORK-2-1.pdf.

Institute of Directors Southern Africa, *King Report on Governance for South Africa 2009*, 2009, Johannesburg, IODSA.

Jackson, G., “Understanding corporate Governance in the United States, An Historical and Theoretical Reassessment’, Hans-Böckler-Stifting, Mitbestimmungs-,Forschungs-und studienforderungswerk des DGB, Düsseldorf.

London, B., *Ending the Depression Through Planned Obsolescence*, 1932, https://openlibrary.org/books/OL6281504M/Ending_the_depression_through_planned_obsolescence.

McKean, J., *Customers are people…….the human touch,* London, John Wiley & Sons, 2003.

MTN., 2013 *MTN Group Limited Integrated Report for the year ended 31 December 2013*, http://mtn-investor.com/mtn ar2013/det-risk.php.

Nkabinde, S., *MTN Zakhele plummets on JSE debut,* 2015, *http://www.techcentral.co.za/mtn-zakhele-plummets-on-jse-debut/61121/.*

OECD., Principles of Corporate Governance 2004, http://www.oecd.org/daf/ca/corporategovernanceprinciples/31557724.pdf

Open Source Initiative., ‘The Open Source Definition (Annotated)’, No date, http://opensource.org/osd-annotated.

Parliament of South Africa., *The Companies Act, no 71 of 2008,* Pretoria, Government Printers, 2008.

Price, D., ‘Green Apple: Why Apple was bad for the environmental (and why that’s changing’), *Macworld*, 2014, http://www.macworld.co.uk/news/apple/why-apple-was-bad-environment-why-changing-green-3450263/.

Rawsthorn, A., ‘The Proper Blend of Beauty and Ethics’, *The New York Times, Art & Design*, 2012, http://nyti.ms/MOwByY.

Rethink Robotics., 2016. *What makes our robots different?* http://www.rethinkroboics.com/baxter/what-makes-our-robots-different/ .

Rowbottom, N. and Locke, J., ‘The emergence of integrated reporting’, *Accounting and Business Research,* 2016, vol. 46, no. 1 pp 83-115.

Rubics, D., ‘New McDonald’s In Phoenix Run Entirely by Robots’, *News Examiner, Examine Your World*, 2015, Available from http://newsexaminer.net/food/mcdonalds-to-open-restaurant-run-by-robots/.

Schumpeter, J. A, and Elliott, J.E., *The Theory of Economic Development,* New Brunswick, Transaction Publishers, 1982.

Secombe, A., *Tariffs bring relief to steel market*, 'Business Day Live', 2016, http://www.bdlive.co.za/business/industrials/2016/01/08/tariffs-bring-relief-to-steel-market.

Selman, P., 'Systematic environmental reporting and planning: Some lessons from Canada', *Journal of Environmental Planning & Management*, 1994, vol. 37 no. 4, p 461, http://0-web.b.ebscohost.com.innopac.wits.ac.za/ehost/detail/detail?vid+11&sid+[8100c1d-066e-475c-bf285abc14ed5aed%40sessionmgr111&hid=107bdata.

Sen, S., 'The Tata Way', 2011, www.tata.com/articleinside/wY0i01Xq5Y4=/TLYVr3YPRMU=).

Slade, G., *Made to Break Technology and Obsolescence in America*, Cambridge, Harvard University Press, 2008.

Smith, A., 'Justice and Beneficence', 1759, http://www.libertarianism.org/publications/essays,justice-beneficence.

Spinks, R., 'We're All Losers to a Gadget Industry Built on Planned Obsolescence', *The Guardian,* 23 March 2015, http://www.thegardian.com/sustainable-business/2015/mar/23/were-are-all-losers-to-gadget-industry-built-on-okabbed-obsolescence.

Stohr, K., 'Kantian Beneficence and the Problem of Obligatory Aid', *Journal of Moral Philosophy*, forthcoming 2010, p 17, www.faculty.georgetown.edu/kes39/Stohr_201_Kantian_Beneficence_and_the_Problem_of_Obligatory_Aid.pdf.

The dti., *The Revised Broad-Based Black Economic Empowerment Codes of Good Practice*, 2015, https:/www.thedti.gov.za/economic_empowerment/bee_codes.jsp.

The Guardian., 'The Life Span of Consumer Electronics is Getting shorter, study finds', 3 March 2015, www.theguardian.com/environment/20015/mar/03/lifespan-of-consumer-electronics-is-getting-shorter-study-finds.

Tovey, A., *Diesel scandal will wipe out VW for at least two years,* The Telegraph, 17 October 2015, http://telegraph.co.uk/finance/newsbysector/industry/engineering/11917034/Diesel-scandal-will-wipe-out-VW-for-at-least-two-years.html.

Willard, B., 2012, *The New Sustainability Advantage*, Gabriola Island, New Society Publishers, 2012.

Willard, L.D., ‘Is Action Within the Law Morally Sufficient in Business?’, *Contemporary Issues in Biomedicine, Ethics, and Society,* 1983, pp 89-99.