



**Graceful Simplicity**

**CORPORATE RESPONSIBILITY  
IN THE  
TELECOM SECTOR**

# Graceful Simplicity

Gaining More from Needing Less

Anna Isabelle Ette, Laura Schelling, and Sebastian Weiss

*Keywords*

*Sufficiency, Sustainability, Innovation, Post-Growth, Eco-Efficiency, Telecommunication*

In this paper, we demonstrate how in times of excessive, inconsiderate consumption, deliberate limitation of production may be a device to enhance a company's economical, ecological and social revenue. In order to map out this idea, we focus on sufficiency as the most powerful element of sustainability theory. We start by reviewing some aspects of Aristotle's ethics of virtue. Robert Solomon's contribution is taken to translate Aristotle's ancient instructions into modern days' business ethics: The aim of entrepreneurship ought to produce valuable satisfiers rather than a thoughtlessly put-together range of products leading to profit maximisation. With Solomon's backup, we argue that a company's entrepreneurial strategies must reflect its duty and willingness to care for its employees, to produce responsibly and to compensate for external effects. Sufficiency policies may serve companies as key notes for veritable, sustainable growth and should be reintegrated in their corporate governance.

ettta.anna@gmail.com  
laura.libra@gmail.com  
sebastian7706@web.de

“So distribution should undo excess  
And each man have enough.”  
(Shakespeare, King Lear, 4.1.66)

## **1. Introduction**

### *1.1 The Price of Economic Growth*

Faster, bigger and, above all, more of it! This has been economists’ credo since the end of World War II. Thanks to continuous economic growth, it was possible for today’s industrial countries to establish prosperity and social equality in a functioning social market economy (cf. Schneidewind/Zahrnt 2013: 12f.). As the story goes, everything started as a temporary solution for the economic misery after the war. For most European countries, it did not take long to overcome post-war poverty, but the economic ideal of economic growth at all costs did not change much until today (cf. Skidelsky/Skidelsky 2013: 64). The wealth of industrial countries is a result of the concept of economic growth.

However, what came along with material welfare was an increasing demand for natural resources. CO<sub>2</sub> emissions have increased substantially as well since China, Brazil and India joined the industrial countries. In the face of the task to provide for the world’s seven billion people, the inevitable question of how to deal with ecological problems resulting from production has arisen. Environmental scientists commonly use three dimensions of ecological boundaries: climate change, the loss of biodiversity and the overload of the nitrogen cycle. All of these have already by far been overstepped in the course of worldwide industries’ development (cf. Rockström et al. 2009). We mention all this to substantiate that there clearly exists a general need to be concerned about the earth’s natural limits. In order to keep the planet a worthwhile place to live, we need to reconsider both the present conception and our belief in economic growth. We need new strategies of how to develop our economies and grow in a sustainable manner. Focusing on sufficiency seems to be a promising attempt that has not yet been entirely fleshed out. We hold this fact to be an advantage and invite readers to consider the concept’s potential as a theoretical leitmotif for corporate governance.

This paper consists of three parts. In the first part, we introduce the term sufficiency and its conditions and explain which elements of sufficiency theory have evolved thus far. In the philosophi-

cal second part, we refer to Aristotle and use the commentaries of Robert C. Solomon in order to gain insight to the fundamental, Aristotelian ideas of corporate citizenship and corporate culture. Having established conceptual evidence as to why a company is obliged to care about its external effects, we explain different sufficiency policies that could be implemented - starting from more general reflections to considering the telecommunication sector. Concluding with the rebuttal of several common arguments against sufficiency, we aim to convince our readers in the final part of the paper that the change of mentality towards a graceful and simple life is conceivable even from an economic point of view. The change in question will not arise from a social movement but can and should originate in the firm. The latter may profit from it in various ways.

### *1.2 Sufficiency as Part of Sustainability*

What does this rather abstract term ‘sustainability’ entail? One commonly distinguishes between the concept of weak sustainability and strong sustainability. Weak sustainability is based on the idea that there are three dimensions of sustainability – an ecological, an economical and a social dimension. In this framework, a system may be called sustainable if the combined capital resulting from all three dimensions is constant or growing. This requirement implies convertibility within the dimensions. If our system uses up more natural resources (decreasing ecological capital), it could still be named sustainable if this brings about sales that even out the ecological losses (increasing economical capital). As seen with the example, in this concept, generating welfare can be prioritised over the preservation of nature without fallouts. Contrastingly, strong sustainability puts ecology first. Ecology is seen as a prerequisite for any other dimension. This concept applies strict rules to the use of natural resources: Renewable resources are to be used only at the rate they can regenerate. Non-renewable ones are not to be used at all with the exception that they help to generate new renewable resources. We work with the concept of strong sustainability in our paper.

Because terms like efficiency and eco-efficiency are used in public debate interchangeably, we reintroduce them in detail in the following paragraph. This is also done in order to gain ground on the claim that firms should concentrate on sufficiency policies in the future. Traditionally, there are three components to sustainability, namely: (1) efficiency, (2) consistency and (3) sufficiency. All three of the pillars are unique and need to form a resilient foundation for sustainability.

1. Efficiency, understood as eco-efficiency, aims at disconnecting economics from natural resources. The main idea is to increase the productivity of natural resources through technological innovations. Obviously, this concept aligns well with capitalist thinking since less input is used to achieve the same productivity. Still, efficiency has a flaw: Efficiency gains tend to lead to increased production. Modern engines, for instance, need much less energy per kilometre, but the overall wastage of a modern vehicle has increased in comparison to older models because of a similar increase in speed and higher facility standards (cf. Schneidewind/Zahrnt 2013: 19f.). This so-called rebound effect was first addressed at the end of the 19th century when William Stanley Jevons observed highly increased usage of steam engines from the moment they were at people's disposal. Rebound effects are hence also called Jevons' Paradox. They are the main reason why efficiency cannot be the exclusive solution to problems regarding sustainability.
2. The second component of sustainability is consistency. The idea of consistency is to integrate production processes in the ecological system. Resources and products should be fully reusable and compatible with the biosphere so that no waste is formed. Non-natural materials should be recycled in a closed circuit, or they should simply not be used. Consistency tries to avoid the depletion of non-renewable resources. The idea of consistency has not been discussed quite as much as efficiency but is increasing in scientific awareness (cf. Linz 2004: 8). However, there is also a drawback to it. The eco-system is not disburdened simply by using wooden materials instead of plastics. As long as more of the renewable resource is wasted than the natural level of regeneration allows, there is no benefit. Moreover, efficiency and consistency alike require technological innovation. Their development is usually costly and time-consuming. Hence, there is obvious need for another component to effectively disburden the ecosystem.
3. The aspect of sufficiency has been widely ignored in political and economic debate. It is not as easily compatible with the present economic ideal as efficiency and consistency. Sufficiency has been criticized for being retrogressive as it demands restraint. Still, sufficiency is the missing link to make all three strategies form a successful model. It is a quickly feasible strategy without rebound effects of the kind of which efficiency brings about (cf. Schneidewind/Zahrnt 2013: 20). There is strong evidence in favour of opting for sufficiency instead of relying on the two other pillars as the latter are prone to be subject to rebound effects and thus fail to support the advance towards sustainability in the medium and long run (cf. Figge/Young/Barkemeyer 2014). Especially efficiency strategies create a much higher probability that the positive impact achieved by some individuals will be directly seen by others who take this open gap gratefully

and consume the ‘savings’ of the first individuals as a positive externality. In this case, no sustainability gain comes about. By postulating an ecologically and socially compatible limit for economic growth, sufficiency policies avoid this effect. They help to single out an average amount of resource consumption that lies below the ecological limit (cf. Linz 2004: 10).

As already stated above, sufficiency does not claim to be a saviour. Taken separately, neither pillar can provide final answers to questions of sustainability. Still, we opted to work with sufficiency as is the least elaborated part of sustainability theory.

### *1.3 Decoupling Quality of Life from Economic Growth*

When promoting sufficiency, we do not speak out in favour of moving backwards to an economy of scarcity. Of course, it is legitimate for people to strive to improve life through production and consumption. The problem with regard to the latter is that additional costs such as the consumption of water and fossil fuels are not priced into the final distributor’s final offer, which is severely misleading for consumers. Evidently, most of the said hidden production factors such as clean air and fossil fuels are subject to the tragedy of the commons. To halt producers’ taking advantage of these goods, some economists have suggested a respective amendment to the Unfair Competition Act. By prohibiting the externalisation of costs by law, common properties such as clean air, water, and lands could be treated as real commons across-the-board by means of a comparably simple legal mechanism (cf. Scherhorn 2011).

Because such amendments are not likely to be put into practice in the near term, we settle for another option. In the following, we aim to reveal how, when implemented all together, the three pillars of sustainability specified in chapter 1.2 enable companies and individuals to decrease their use of resources without reducing their quality of living.

Figure 1 illustrates how efficiency, consistency and sufficiency work together. They have to be pursued separately and conjunctively. The overall goal is to decouple quality of living from the consumption of resources while the other two dimensions, consumption of resources and quality of living, in turn have to be decoupled from economic growth.

Decoupling resource consumption from economic growth is made possible through efficiency and consistency: Efficiency strategies enable us to gain the same amount of output from fewer resources. Consistency strategies align production processes within the ecological cycle. Thus, the part

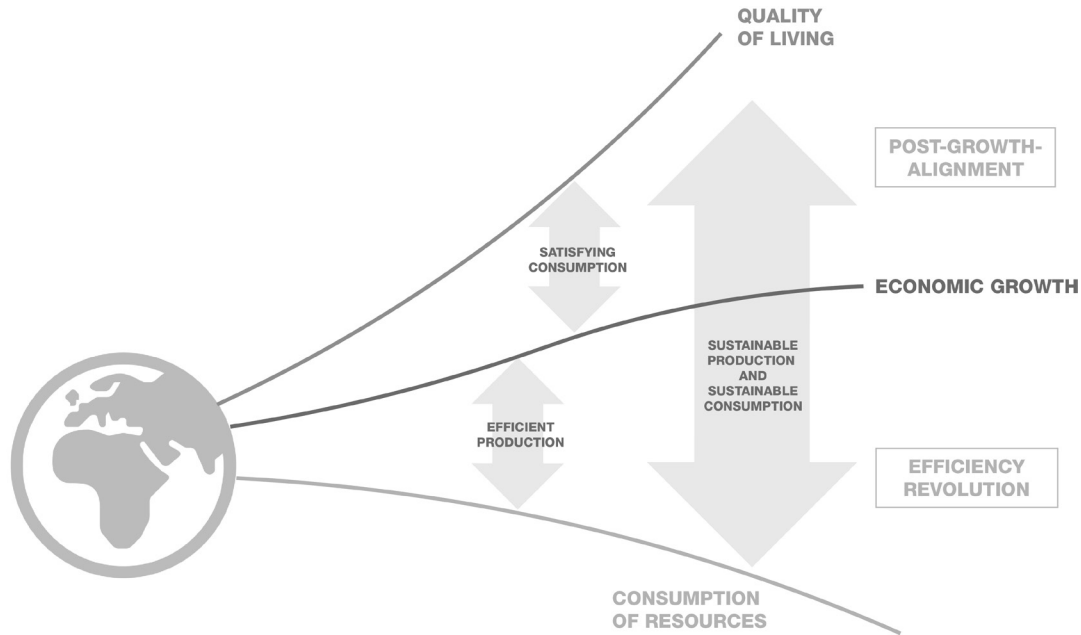


FIGURE 1: DECOUPLING OF THREE DIMENSIONS

(SOURCE: OWN ILLUSTRATION BASED ON SCHNEIDEWIND/PALZKILL 2012: 24)

denoted as ‘Efficiency Revolution’ includes both of these pillars. However, due to rebound effects, efficiency and consistency cannot do the job of decoupling entirely. If we want to run economies in alignment with the preservation of nature, we need to decouple our subjective quality of living from economic growth. Sufficiency enables us to start with this part of decoupling.

## 2. *Philosophical Foundation*

### 2.1 *Aristotle’s Groundwork*

Even though the term sufficiency is rather new to economics, the concept of modesty and saturation is over 2,300 years old. The ancient Greek philosopher Aristotle gave thought to exactly this topic in “The Nicomachean Ethics”. He states in these works that the ultimate goal of our actions is

eudaimonia because it is complete and self-sufficient, in the sense that it can be sought for as an end in itself. Eudaimonia<sup>1</sup> is almost always translated as “happiness” but should rather be understood as “achieving one’s full potential” (Hughes: 2013: 20). In opposition to the suggestion of “happiness”, as simply a certain feeling of contentment or pleasure, the meaning of eudaimonia is much more closely connected with what one has made of oneself and one’s life (cf. Hughes: 2013: 20f.).

Aristotle holds that in order to achieve eudaimonia, one has to live a virtuous life. To grasp what this means, one has to understand his concept of virtues from which he later deduces his Doctrine of the Mean (doctrine of *mésotés*):

“Virtue, then, is a state that decides, consisting in a mean, the mean relative to us, which is defined by reference to reason, that is to say, to the reason by reference to which the prudent person would define it. It is a mean between two vices, one of excess and one of deficiency” (Arist. EN II.7, 1107a §15 trans. Irwin).

Virtue is a mean insofar as it targets what is intermediate. Aristotle explains that the mean ‘relative to us’ is not what is equidistant from each extremity but rather what is neither superfluous nor deficient (cf. Arist. EN II.6, 1106a §5 trans. Irwin). Unsurprisingly, this can be read as the very definition of sufficiency. Already an ancient Greek philosopher preached that living a virtuous life cannot involve indulging in things – say, production and consumption – ad nauseam but rather calls for temperance and knowing what suffices to satisfy one’s basic needs. What we want to speak in favour of with this paper is that, in order to achieve a sustainable economy, long-term success for any corporation, and eudaimonia for all the engaged, we do not have to reinvent the wheel but bear upon the equally simple as well-established concept of modesty.

## 2.2 *Solomon’s Translation*

The modern ethicist of virtue, Robert C. Solomon, claims to take an Aristotelian approach to business ethics. He holds Aristotle to be not only the first economist but also the first business ethicist. Aristotle made an important distinction within what we call economics today. He distinguished

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1 Aristotle defines eudaimonia or the human good as an activity of the soul in accordance with virtue, and if there are several virtues, in accordance with the best and most complete (cf. Arist. EN I.7, 1098a15-21 trans. Wolf). He adds that eudaimonia, understood as “living well” or “doing well”, involves one’s life as a whole and consists of action.



oeconomia in the sense of house holding – which he was fond of and thought indispensable for the proper viability of “any even moderately complex society” (Solomon 1993: 50) – from chrematistics as profit-seeking or the mere trade for profit, which he saw as wholly devoid of virtue (cf. Solomon 1993: 50).

Aristotle disdained the “illicit and unproductive practice of usury” (Solomon 2004: 1022) or profit-seeking in general and despised anyone who engaged in the financial community. He argued that commodities should be exchanged only for the price of their real costs of production plus an additional fair reward for the ones involved in their production. Thus, he concluded that any profit was a kind of exploitation since the additional value had to come from somewhere (cf. Solomon 2004: 1022). Without major amendments, this can be taken to sum up quite aptly what Aristotle’s viewpoint on modern day’s business activities would have been.

Apart from community and corporate citizenship, which form the core of Solomon’s thesis and will be elaborated upon shortly, *arête* is another main ingredient of the Aristotelian approach to business ethics. The Greek *arête* may be translated either as “virtue” or “excellence”. Solomon takes this dual translation to submit a striking point: The objective of business ethics is not only to “knowingly do no harm”. Instead, it is to personally excel and to do one’s best (cf. Solomon 1999: 57). The goal of a corporation should not be to produce its products in a more or less ecologically bearable way, but rather to strive to produce goods in the most sustainable sufficient manner and to fully include all considerations regarding the production’s impact on the environment and public welfare into its business plan.

Solomon is concerned with the role of the individual in the corporation and the corporation in society. He puts special emphasis on the individuals’ characters and virtues, which he ideally envisages embedded in and in service to the larger community. According to the ideal draft, he sketches business to be a human enterprise. The corporation then is cast in the mould of a morally and socially responsible agent that has the end to serve humanity instead of making profits (cf. Solomon 2004: 1023, 1026). The extent to which this mission is effectuated delivers the benchmark according to which a corporation can be evaluated (cf. Solomon 2004: 1026):

“Without a mission, a company is just a bunch of people organized to make money while making up something to do (e.g. beat and out-compete competitors)” (Solomon 2004: 1026).

In this perception, the corporation legitimates its existence not by the economic but rather the social surplus value that it generates.<sup>2</sup> A corporation that delivers sufficiency tools for its customers helps them to achieve a sufficient lifestyle.

### *2.3 Happiness in the Community*

Solomon also stresses another central ethical concept of Aristotelian theory which is the unified and all-embracing notion of happiness. The idea is to have a holistic concept of life and to neither separate professional life from personal life nor duty from pleasure. Solomon reminds us that our understanding of happiness is far more Aristotelian than we might think. The determinant for happiness is not money but rather to occupy a respected place in a decent and prosperous community and to have sufficient time to enjoy it. In this framework, success does not equal having a high salary but respect, love and admiration (cf. Solomon: 1993: 65). Simply put, “Happiness is flourishing, and this means fitting into a world of other people and sharing the good life, including a good job” (Solomon 2004: 1024). Thus, a good job is not just a job that pays well or is relatively easy done but a job that has a meaning, a purpose, beneficial results and is one that one enjoys doing (cf. Solomon 2004: 1024).

Happiness is about becoming the sort of person one wants to be, and for Solomon, this involves what one does for a living to a very large extent. This aspect should be reflected in the holistic schemes of a corporation’s rights and duties. Solomon summarises that, based on Aristotelian ideas, a corporation is required to provide for its employees, firstly, by giving them tasks that ultimately lead individually towards eudaimonia and, secondly, that yield beneficial results for the larger community. “The bottom line of the Aristotelian approach to business ethics is that we have to get away from bottom-line thinking” (Solomon 1993: 65).

Solomon holds that a good life in business is essentially shaped by the aggregate of cooperative and competitive effort, personal integrity, and the contribution to the community. This aggregate contains many factors and, figuratively speaking, is situated far above the common bottom line of operating numbers, e.g. the bare measurements of financial gain. In Solomon’s eyes, wanting too much without considering one’s character and reputation is a myopic form of stupidity.

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<sup>2</sup> Assuming that economic growth is not something good per se; to be fully elaborated upon in chapter 3.3.

Aristotle had already realised that greed (pleonexia) was a defect of character beyond redemption (cf. Solomon: 1993: 65).

Plato also eventually referred to pleonexia as a serious vice. This expression, which is tantamount to greed, includes the suggestion of “too much”. It is excess, a vice, quite distant from being the “mean relative to us” (cf. Solomon 2003: 27).<sup>3</sup> When referring to the Talmud, Solomon already points in the direction of sufficiency with statements such as: “The rich man is one who is satisfied with what he has.” and: “More is not necessarily better. To think otherwise is to embrace a vice, thinking that it is a virtue.” (Solomon 2003: 29). Following Solomon’s summary of Aristotle’s ideas, one realises that the latter’s approach to business ethics is not against business or economic success as such, but anti-pleonexia, that is: it tackles greediness. In this sense, we can interpret it to stand with us in its embrace of sufficiency.

The Neo-Hobbesian perception of “every man for himself” is the direct denial of the Aristotelian view in Solomon’s assessment. He states that we are all members of a community and that our self-interest is for the most part identical with the larger interest of the group (cf. Solomon: 1993: 56f.). Complete virtue requires concern for others. According to Aristotle, human potential and objectives can only be realized and lived up to within a community. The individual’s happiness is necessarily connected with the happiness of fellow members of a community (cf. Irwin: 1999: p. xxiii). Thus, Solomon takes the old Greek saying, “to live a good life, one must live in a great city” and adjusts it to our modern business times: “to live a good life, one must choose the right company” (Solomon 2004: 1028). For uncountable employees and managers, their corporation grows to be their primary community:

“For better or worse, that institution that will define the values and the conflicts of values within which one lives much of one’s life” (Solomon 2003: 45).

Following this reasoning, a corporation has not finished with ensuring that its employees gain eudaimonia by working for it. It has also to work on the accomplishment of the educational mandate associated with employment, meaning that it has the duty to impart the right values to its employees. It also entails not creating situations for the employed charges in which their personal values conflict with the corporation’s goals. If it is all about our community, which allows us to develop

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3 According to Solomon, it is “an extreme form of selfishness, an oblivion to all virtues, and neglect or contempt for any good but one’s own” (Solomon 2003: 28).

our sense of individuality and integrity in the first place, how can we design business models that preserve this mechanism? After considering other long-term objectives such as the sustainment of ecosystems and the preservation of resources for future generations, we opt for sufficiency strategies.

#### *2.4 Corporate Citizenship and Corporate Culture*

Conceiving of the corporation as a citizen itself – that is, a member of the larger community and inconceivable without it – leads to the very origin of a corporation’s social responsibility. Solomon rejects the classical arguments for the social responsibilities of businesses. He holds that practically all approaches in this field tended to make the mistake of assuming that corporations were autonomous and independent entities. It was wrongly deduced from this that a corporation’s obligations depended on to the surrounding communities. Solomon, instead, emphasises that corporations, like individuals, are part and parcel of the communities that created them. Consequently, the responsibilities they bear are not the products of argument, locking horns with labour unions, or implicit contracts but intrinsic to their very existence as social entities (cf. Solomon: 2004: 1028f.).

This claim marks a crucial point in business ethics: The corporation is not an entity in a morally free space. The corporation cannot pretend to be without moral obligations whatsoever with only the generous inclination to reinvest a small percentage of their revenues in more or less randomly chosen projects. True commitment to Corporate Social Responsibility (CSR) is neither caritative nor compensatory. Instead, a corporation’s CSR measures determine its legitimacy to earn money in the first place. We conclude from this that every corporation has the obligation to administer its business to serve the larger community of which it is a part. This includes a substantial number of people since many are not only affected directly but also indirectly by being dependent by way of the corporation’s products and decisions. Solomon’s writings irrevocably established that taking social responsibility is not a choice – as still many corporate leaders continue to believe – but an absolute obligation. Therefore, large-scale societal changes like a comprehensive turn of many people towards less consumption and more conscious life plans can be expected from consumers to originate in the bosom of a corporation.

Solomon holds the concept of a corporate culture in business ethics in especially high esteem (cf. Solomon: 2003: 48). He argues that cultures are cooperative enterprises with both public and

private purposes, since they presuppose shared knowledge, experience, and values.<sup>4</sup> Its values form the essence of a corporation and its culture (cf. Solomon: 2003: 49). Solomon warns that focusing on financial rather than social issues will dehumanise the corporation and make it less efficient (cf. Solomon: 2003: 50). Corporate culture evolves where a group of people work for shared interests and purposes. Solomon stresses that shared values, the sense of a communal mission and social responsibilities, hold the corporation together (cf. Solomon: 2004: 1036).

In order to gain normative insights about what a suitable line to follow should be with regard to corporate values in the telecommunication sector, we have to have a look at the distinctive traits of corporate culture in this industry. Broadly speaking, the shared purpose of corporations in the telecommunication sector is to connect people, enabling them to communicate, cooperate and work together on shared enterprises and common goals, even if they are separated by thousands of miles. Thus, the ultimate mission is to overcome physical boundaries and to help people to realise their full potential. By viewing corporations as communities and as cultures in line with the description above (with joint values and almost importantly social concerns), questions such as “Where do corporate values come from?” and “How can corporations be socially responsible?” vanish into thin air. These questions are window dressing since they are already clearly answered (cf. Solomon: 2003: p. 50f.). Solomon points out further that the free market economy and our idea of ‘doing business’ is still an “ongoing experiment” (cf. Solomon: 2003 50f). We read this to be a good starting point to begin changing habitual ways of thinking.

Like the Bronze Age and the Iron Age, the Telecommunication Age marks a crucial point in human history. The Digital Revolution establishes numerous new possibilities for the human race and by virtue of global communication offers solutions to problems that have been impossible to solve for decades e.g. finding cures for certain diseases, vaccinations, etc. The telecommunication sector, as the leading branch of the Telecommunication Age, should take pride in its forerunner role of how to do business in a more sustainable way. This is an opportunity for the telecommunication sector which is best taken by directing its activities towards a business model honed in on sufficiency.

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4 A culture entails essentially a sense of mutual belonging and the sense that one’s own interests are inevitably aligned with the group interests (cf. Solomon 2004: 1032).

### ***3. A Sufficient Business Model***

#### *3.1 Sufficiency Strategy*

Economic sufficiency strategies have barely been established in companies so far. What supports the notion that this is to come in the near future is that currently, various markets show a high level of saturation while innovations tend to be incremental. Along with market saturation come enormous costs for research and development in order to earn a marginal surplus on a product. This may be the moment to consider the implementation of sufficiency strategies which we specify in the following.

In his contribution to a summit on sustainable development in 1993, Wolfgang Sachs singled out four elementary sufficiency strategies (cf. Sachs, 1999: xii). Firstly, reduction in terms of reducing the overall amount of goods consumed; secondly, deceleration referring to the frequency of consumption; thirdly, ‘de-commercialisation’ in terms of a focus on manufacturing and repairing instead of passively consuming goods; and fourthly, ‘regionalisation’ – meaning shorter transportation routes due to regional consumption. All of these strategies can be applied to entrepreneurial activities. There are various examples of companies which established some type of the sufficiency strategies successfully. Manufactum, a producer of high quality housewares, generates its surplus with rather costly but therefore long-lasting products that are easy to repair and made from eco-friendly materials. This way, the ecosystem is preserved by less overall consumption without being to the company’s financial disadvantage (cf. Schneidewind/Palzkill 2012: 11).

The overall reduction of consumption is not a valid option for every industry. If it is not, ecological disburdening is still possible by deceleration: If a product’s lifetime is extended to twice the amount of time, the used material’s productivity is duplicated. Costs of transport can be reduced considerably by decelerating the supply chains. The demand for deceleration strategies is visible already in the service sector. Concepts such as “slow food” or “slow travel” increasingly enjoy popularity. As already stated, with his definition that business ethics be more than “knowingly do no harm” (cf. Solomon 1999: 57), Solomon demands that a company does the best it is able to. The call to implement sufficiency strategies can be read in the same way: every company should evaluate its options and choose excellence with regard to innovative and specifically tailored measures. So far, regionalisation strategies have been established most effectively. The idea is to consume more regional products which has already been implemented quite well in the food sector. Through

this idea, transportation costs are reduced, and the ecosystem is disburdened by shorter transport routes. At the same time, consumers' social and ecological conscience for regional production is sharpened (cf. Schneidewind/Palzkill 2012: 12).

If companies start establishing sufficiency strategies and adhere to them economically, and ecologically – referring back to the philosophical point of view we introduced before – social surplus can be gained in times of inceptive market saturation. Although it is not measurable in numbers, a company's social surplus is the prerequisite for its legitimised existence and must be cared for according to Solomon (cf. part 2.2).

### *3.2 Sufficiency and the Creation of Value*

In the next step, we want to shed light on the different arguments underpinning the concept that a competitive advantage may be gained via sufficiency. Again, this cannot yet be entirely proven due to the lack of appropriate empirical data. To systemise the following remarks, we firstly sketch a threefold classification of the linkage between a product and its sufficiency degree.<sup>5</sup>

In theory, a product is associated with sufficiency if (1) it has been produced with regard to sufficiency convictions. It is also regarded as compliant with sufficiency policies if (2) it can be used in order to promote sufficiency to others (signalling) or by way of the performed activity or if (3) it originates in a company striving for sufficient organisational structures.

Having outlined those three clusters, it becomes clear that products may emerge from an ambience characterised by one, two, or all three of the above statements. Comparing the sustainability policies of the main agents in the telecommunication market, it can be observed that the clusters (1) and (2) have been discerned and put into practise by some companies' strategy committees – for instance, the companies FairPhone and Deutsche Telekom. Cluster (1) includes sufficiency implemented in logistics and operations as well as in terms of a company's procurement. The company is responsible for its products and thus obligated to provide transparency with regard to their production processes and the materials used. FairPhone's focus on ecologically sustainable and ethically fair production of devices serves as an example in this respect. The company establishes this on its webpage: "We're putting social values first and opening up the supply chain. One step

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<sup>5</sup> We intensified the conception of CSR in core business by inserting sufficiency in the place of sustainability in the reasoning.

at a time”<sup>6</sup>. In line with what Solomon requests, FairPhone shows its standing with regard to CSR. The company reveals its self-perception as a corporation “with joint values” (Solomon 2003: p. 50). For the reasons explained above, such claims should be the rule rather than the exception. The explicit objective to “be social” is not a marketing strategy of one company with a social mindset but stems from within the idea of a corporation and is thus valid for all (cf. Solomon 2003: p. 49ff.). Sufficiency strategies can also be applied to other parts of the telecommunication sector than terminal devices. Providers with outstanding customer service can profit from measures of cluster (2). For instance, there have been attempts to design some type of “sufficient goods and services” by the provider Deutsche Telekom lately. The company currently offers a reduction of monthly payment for operation in exchange for the common right to a new terminal device. After the usual 24 months of the contract have passed, customers are free to choose a lower monthly rate when continuing with their old phone (cf. T-Mobile 2011). This way, Deutsche Telekom gives customers a monetary reward and thus encourages sustainable consumption. To create incentives that lead consumers towards responsible and conscious decision-making may be understood as company-driven education of consumers that Solomon hints at when speaking about the firm’s radiation of values (see chapter 2.3).

Seemingly cluster (3) is not yet perceived to be part of the picture. This disregard is striking since companies performing in competitive international markets depend on continuous innovation in order to raise or vindicate their market shares. This pressure leads to a highly unstable and fast-paced situation where no new and untested idea whatsoever can be blindly discarded since a missed opportunity may come with huge losses. How are we to implement cluster (3) – overall sufficient organisational structures – in a company?

For a sufficiency approach that covers not only the first two clusters but also makes the company intrinsically sufficient, we need to take a firm’s internal activities into account. According to Solomon’s approach to business ethics, a company’s duty is not only to provide the possibility for its employees to work but also has to live up to its educational mandate. Therefore, it is vital to focus on human resource management and the firm’s infrastructure in order to inspire action in the right direction. Earlier in chapter 1.3, we already hinted at the three kinds of prosperity there are theoretically with regard to overall happiness. A sufficient structure requires the company to create a balance between prosperity of time, space and goods in accordance with its employees. In

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6 cf. <https://www.fairphone.com/>



Solomon's ideal image of the company, every member is free to define her own optimal balance of prosperities. There is a definite demand for more flexibility in these days. Empirical studies were able to show that flexibility increases employees' loyalty and their quality of work.<sup>7</sup> The incentive to enjoy more time and personal space instead of spending it only working would thus create social, ecological, and economic benefit. It is clearly time-consuming to revise organisational structures, and changes will happen slowly and incrementally. However, we imagine that a company's efforts, especially with regard to cluster (3) will be successful once established.

Having presented these visions, we still have to treat several arguments that level criticism against the idea of striving for reduced consumption in an economy. In the following paragraph, we pick up a few of the arguments that are most commonly brought up in usual discussions and show options to weaken them.

### *3.3 Sufficiency and Economic Development*

It is easy to find sceptics who hold that sufficiency should not enter the canon of thoughts which shape policy making. In their perception, it clearly impedes economic growth which cannot be advantageous to society. The driving rationale behind is the conviction that economic growth is the driving force and the benchmark of an ever more prosperous economy. This underlying assumption can be questioned. It is not clear-cut whether a society on the move towards a continuously higher economic level grows richer in terms of individual contentment and social added value. In fact, there is extensive research suggesting otherwise. The economist Richard Easterlin convincingly showed in 1974 that more consumption does not increase personal wellbeing above a certain level of economic wealth (cf. Abramovitz/David/Reder 1974).<sup>8</sup> Passing from there on to Amartya Sen's "Poor, Relatively Speaking", various psychological and sociological findings advise us not to take things too facilely.

Even leaving famous essays out of the discussion, defenders of sufficiency are free to argue that economic growth will fail because of demographic reasons. Put bluntly: Fewer people consume

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7 cf. <http://www.n24.de/n24/Wissen/Job-Karriere/d/4140192/flexible-arbeitszeiten-erhoehen-die-loyalitaet.html>

8 We do not mean to dive overly deeply into Happiness Economics at this point but to add a slight disclaimer: Being aware of the disagreement with regard to the validity of the data used to compute the regressions at stake, we go with the view that it is doubtful whether the strict equation of "income=happiness" holds as such. The First World Happiness Report launched by Columbia University in 2012 ends the dispute by confining itself to state that probably many other factors are by far more important than income to determine people's wellbeing: <http://earth.columbia.edu/articles/view/2960>.

less anyway (cf. Linz 2006: p. 11). Working towards the objective of exponential growth distorts the perception of economic development. The design of the annual reports on economic growth show the incremental change in relation to the previous year and thus impose a focus on positive growth.<sup>9</sup> Given that the population in most developed countries is in decline, it would be rational to hope for linear growth rather than exponential growth. The latter is not a good proxy to the growth figures that can rationally be expected. That this kind of well-established approximations does not work out any more may hint that it is necessary to come away from the “illusion of the problem-solving power of growth” (Kurt Biedenkopf as cited by Manfred Linz (Linz 2006: p. 27)).

Following the lead of Schumpeter, one could, secondly, maintain that positive or negative growth is but the description of change in the size of an economy (cf. Schumpeter, 1943). This change is unpredictable as it is dependent on multiple factors and subject to trade cycles (cf. Linz 2006: p. 9ff.). According to Schumpeter, an economy can be thought of as solid and strong if demand always meets supply along the perennial range of changes outlined above: “(...) in dealing with capitalism we are dealing with an evolutionary process.” (Schumpeter 1943: 82) The dynamic capability to adapt to changing consumer needs, economic shocks on the supply side, or the introduction of new markets is what Schumpeter called the necessary process of “creative destruction” (cf. Schumpeter 1943: 83) that pushes an economy forward and integrates innovation. An economy can equivalently grow, shrink or maintain the size of the previous period without inhibiting the dynamic adaptation to external changes. From this point of view, the focus on positive economic growth can be relieved of its signalling importance. It could as well be held to be a construction or heuristic people have become accustomed to. This leaves some space for the question of how to remodel this fixation.

Sufficiency cannot be held responsible for damaging an economy solely by running counter to economic growth. In analogy to Aristotle’s anti-greediness cause, sufficiency is not directed against economic success but against randomness and superfluity. The question what kind of impact sufficiency policies will have on economic development is totally unpredictable when arguing from within the Schumpeterian framework. In order to evaluate the leverage of sufficiency in this respect, concurrent policies would have to be implemented, become established, and be observed over time. Until this point, critique that is targeted at the notion of damage by anti-growth can be judged as naysaying.

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9 cf. table from <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG>

### *3.4 Sufficiency and Greenwashing*

Another reproach which needs to be addressed is that the implementation of sufficiency policies – or other policies which aim at all-encompassing redesign and cultural changes with regard to economic thinking – runs the risk of being perceived by the public as “corporate greenwashing”. Terms such as sustainability and renewability have progressively found entrance in management and strategy departments, particularly in larger companies. In the telecommunication market, almost every company publicly states its commitment to environmental goals. Due to recurrent reports on malpractice consisting in attempts to instrumentalise CSR measures by using them to better a company’s reputation, people have become diffident. Some, thus, hold that sufficiency policies will fail to show any effect because of this wariness and half-hearted acceptance by the public.

To ultimately refute this argument is impossible. Until now, sufficiency policies have only been marginally represented in sustainability approaches and thus cannot be examined adequately. Living with the uncertainty about future developments, we counter the ‘Greenwashing Argument’ with the equally unobservable assertion that consumers’ doubts can be dispelled with suitable marketing strategies.

Policy attempts that restrict consumers by strictly limiting their buying options will be unsuccessful by their very nature. This can be delineated by a reminder of last year’s firestorm in German public media following the well-intentioned proposal of The Green Party to establish a “veggie-day” in canteens and cafeterias (cf. Jörgens 2013). Analogously to what sufficiency policies strive for, the party members tried to implement limits on people’s free choice urging them to consume less meat. Their goodwill was taken as assurance, the opposition seized the moment to pin patronisation on the party, and subsequently the party was severely punished at the polls (cf. Sorge 2013). This example shows that there are different approaches to implement sufficiency policies. Only well-designed policies seen as options and voluntary choices to the decision makers have the prospect of being effective (cf. Linz 2004: 31).

As has been observed by Linz et al., it is vital that sufficiency be communicated with care. The term is currently equated with renunciation and limitation. It surely is rather pejorative. In order to implement sufficiency successfully, a new and positively connoted image must be created. Already by opting to name this paper “Graceful simplicity” in line with Jerome M. Segal’s bestseller instead of using the term “sufficiency” in the title, we have started the campaign (cf. Segal 2003). Relevant marketing strategies promoting sufficiency should refrain from pressing the individual

consumer to make sustainable consumption decisions. It is likely that consumers, if appealed to 'better their behaviour' or simply 'to consume less' by an external source, will become resentful. Linz et al. suggest that the most powerful motive for individuals to take action in accordance with sufficiency was the provision of the prospect of a gain from it. The expected utility at stake must be communicated to consumers in a way that they feel integrated into an ongoing process. Consumers must perceive that the costs of changing habits are shared by all individuals. This is based on the notion that individual welfare is intertwined with the welfare of others, and therefore overall welfare is a shared goal (cf. Linz 2004: 33). Also, being part of a community is identical with sharing values and objectives with one's peers for the most part, as Solomon points out (cf. Solomon: 1993: 56f.).

Believing in the power of marketing, our reproduction of what measures should be taken with regard to the promotion of sufficiency stops at this point. Once demanded, suitable marketing strategies will originate. What is more, the basic notion that individuals are constrained in their conscious consumption to the options they face within what they are supplied with remains. Solomon's reminder that the company's duty to redeem its actions and omissions to the larger community can be fleshed out to say that the firm has an obligation to perform a leading role in societal change. Thus, theoretical and practical findings alike demonstrate that the firm is a more promising starting point for the implementation of sufficiency than individual consumers are.

### *3.5 Sufficiency's Competitive Advantage*

Investing in sufficiency policies is often picked at for constituting a competitive disadvantage. It is blatantly conspicuous at first sight how 'selling less' could boost an undertaking's performance. Still, we have come to believe that products arising from a business model honed in on sufficiency can out-compete those of equal competitors. In the following paragraphs, we set out to strengthen the position that sufficiency is a promising candidate constituting the next benchmark for product innovation.

Even though it has not yet established irrevocably what this would comprise, the potential advantage that is to be gained with restructuring a firm with an emphasis on sufficiency policies is definitely promising. Still, the diversity of business fields where sufficiency policies should be implemented makes it difficult to draft policy proposals in a universal manner. In order to avoid

this problem, we focus on delineating the future role of sufficiency with regard to the more limited market of telecommunication.

Exceeding any other sector, competitors in this field are compelled to introduce ever more breath-taking, innovative features of their products. Apart from their appearances at large computer and technology fairs like ceBIT and Computex, companies serving the telecommunication market are scrutinised in terms of their ability to offer new products or product features especially with regard to their quarterly schedule: companies like Apple are expected to launch new products at least once a year and in perfect alignment with their announcements to do so. Public expectations are high and uninterruptedly stated by the means of bloggers' posts.<sup>10</sup> On the producers' side, technology companies are increasingly unable to provide novelties which reflect consumers' demand. Keeping up expansion rates and sales figures becomes all the more difficult the bigger a player on the market has become. The tech-blogger Greg Satell writing on forbes.com stated: "Still, Apple is no ordinary company. To achieve even 10% profit growth, they need to find over \$5 billion a year, which is more than most companies earn in total. In other words, Apple needs more than good products, they need breakthroughs (...)" (Satell, 2013). His statement also addresses the second challenge of the telecommunication sector: given that nowadays, any smartphone user can expect her smartphone to offer the same basic features, companies in the telecommunication industry struggle to propose Unique Selling Propositions (USPs) that are based on terminal equipment. Companies in question are dependent on new reference values in order to stand out from the crowd and gain consumers' sympathy. They are increasingly dependent on their ability to find and establish new principles of action. Thus, the central question remaining with regard to the feasibility of sufficiency is the following: Can large-scale alterations that change the thinking of an entire branch be induced by the conduct of single agents? We have come to believe that this is possible.

We may find an example of an industry-shaking conceptual change in following the history of IBM. In 2000, the company's engineers admitted defeat in trying to develop chips for personal computers with higher chip speed. Until then, they had managed to double the chips' processing speed every one to two years, which had become an implicit rule they felt obliged to follow (cf. Senor/Singer 2011: 25). This was the moment when a small Israeli team of IT-think-headers offered IBM's headquarters their new kind of low-power processor. Even though these new processors were of higher technological standards than the ones commonly chosen, they lacked the industry's

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<sup>10</sup> Lead users continuously express their anticipation: "An eight-month silence begs the question: What has Apple been up to?" (Wagner 2013).

common benchmark: they were lower in speed as they worked on a different scale.<sup>11</sup> Seeing no possible way of how to not deceive consumers and their shareholders' expectations, IBM's board finally accepted the offer and equipped their main products with the Israelis' low-power processors. Shortly after its release, the name and function of the new technology was borrowed by IBM's close competitors and shortly thereafter constituted the next common benchmark for the processor industry: All relevant players worldwide began to use the low-power processor invented by a small number of Israeli engineers.

Of course, this example cannot be applied across the board, and the implementation of sufficiency strategies is more demanding than "trying to persuade the industry and the press that this [certain] metric was obsolete" (Senor/Singer 2011: 26). In our understanding, the few employees of the Israeli firm managed to implement a new standard because they did so at the right moment. Changes in relevant benchmarking paradigms must occur in high-tech industries as well as in other sectors naturally. Once the old model does not yield further guidance, it is necessary to find a convenient replacement for it. Established as a final objective aimed for during the process and with general regard to product innovation, sufficiency policies are likely to produce positive spill-overs for companies in highly competitive industries.

Thus, we have shown the reasons for our belief that it is a very favourable moment for telecommunication companies: there is a unifying element in that the stage is open for more than just incremental technological innovation or minor novelties in product design. Here is where sufficiency policies come in. Whatever their definite content turns out to be, sufficiency policies could constitute a new benchmark. They are superior to other concepts, particularly because of their uncommitted definition. Many promising approaches with emphasis on sustainability have been pigeonholed as examples of eco-activism over time and have lost their impact on a substantial number of consumers. Therefore, making a virtue of the obvious, we hold that it is sufficiency's versatility which makes it a surprising one-fits-all measure: it has not yet been claimed by too many agents to be dragged in a certain direction, and it does not yet represent a political tendency or a definite school of philosophy.

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11 cf. Senor/Singer: 25: "(...) the transistors in Intel Israel's low power chips did not need to flip on and off as fast, yet, in a process analogous to shifting a car into high gear, they were able to run software faster."

#### *4. Summary*

In this paper, we presented the current state of affairs regarding sufficiency theory with a particular focus on the parts that may be applied to the telecommunication sector. By relying on Aristotelian conceptions of happiness, duty, and the specific purposes of things (*arête*), we make recourse to the main objectives of business ethics. According to Solomon, these concentrate on the task of a company to “do its best”. We read this as a call to maximise a firm’s efforts with regard to social responsibility. Voiced commitments to CSR measures are not sufficient in this respect, nor are attempts to act in accordance with social or ecological objectives adequate if the latter target at a lower level of concern than what a company would be capable of. From a company’s intrinsic social responsibility, we further derived the imperative to follow a sustainable business strategy in order to justify its external effects, for example the exploitation of resources that theoretically belong to all, e.g. water and mineral deposits.

Building on well-known arguments, we assumed consensus about the need for sustainable production. We argued that the best way to do good business is to aim to do it sustainably. In line with the authors of post-growth theory, we discussed the three pillars of sustainability and came to the conclusion that sufficiency is the one that shows most promise to bring about long-term sustainability gains. Contrary to current public opinion – and although it is still widely treated with disregard in scientific debate – we therefore hold that sufficiency policies’ potential can outdo its implementation costs. Judging from the many possibilities to rebut common arguments against sufficiency strategies, we infer that involved costs tend to be perceived to be higher than what can be expected. Since many industries struggle to offer the demanded rate of innovation, it may be the right moment for companies to now introduce strategies focused on sufficiency policies. These may include a range of different measures from overcoming planned obsolescence in terminal equipment and increased efforts to ushering in repairing and durability to conceptual changes. There is particularly a call for an emphasis on the understanding of consumers’ needs and fitted counselling services. Any mixture of steps which offers consumers a broader scope of options to decide responsibly and act with the environment in mind is valid. The sum of the efforts undertaken by all market players may then function as a new sufficiency benchmark. We hold that this will be more concrete and versatile than any other leading technology and will help to provide the right impulses for future sustainable growth.

It cannot be proven that the implementation of sufficiency measures in the supply chain as well as the integration of its central ideas in the company's mission statement will definitely pay off. Developments affecting rapidly changing industries like the telecommunication sector are too numerous and too uncertain to promise anything like that. Still, we are able to state that in case our predictions cannot be verified, no harm can be expected: Even in the worst case – with the tech industry and its consumers taking an entirely different path – potential reputational profits are still very probable with the approach suggested above. At this point in time, sufficiency policies are still free to be claimed; whoever is the first to adopt related measures in a politically unbiased way while keeping sufficiency-specific marketing advice in mind will surely profit from the vacant post.

## ***References***

- Abramovitz, M. / David, P. A. / Reder, M. W. (1974): Nations and Households in Economic Growth: Essays in Honor of Moses Abramovitz, New York: Academic.
- Aristotle / Irwin, T. (1999): Nicomachean Ethics, Indianapolis: Hackett Pub.
- Fairphone (2014): Fairphone A Seriously Cool Smartphone Comments, URL: <http://www.fairphone.com/> (accessed: 19/7/2014).
- Figge, F. / Young, W. / Barkemeyer, R. (2014): Sufficiency or Efficiency to Achieve Lower Resource Consumption and Emissions? The Role of the Rebound Effect, in: Journal of Cleaner Production, Vol. 69, 216–24.
- The Earth Institute (2012): First World Happiness Report Launched at the United Nations, URL: <http://earth.columbia.edu/articles/view/2960> (accessed: 19/07/2014).
- Hughes, G. J. (2013): The Routledge Guidebook to Aristotle's Nicomachean Ethics, London: Routledge.
- Jevons, W. S. / Flux, A. W. (1965): The Coal Question; an Inquiry concerning the Progress of the Nation, and the Probable Exhaustion of Our Coal-mines, New York: A. M. Kelley.
- Jörgens, H. (2013): Nach Dem Veggie-Day-Desaster: Die Grünen Stecken in der programmatischen Falle, URL: [http://www.focus.de/politik/experten/joergens/nach-dem-veggie-day-desaster-diegruenen-stecken-in-der-programmatischen-falle\\_id\\_3098556.html](http://www.focus.de/politik/experten/joergens/nach-dem-veggie-day-desaster-diegruenen-stecken-in-der-programmatischen-falle_id_3098556.html) (accessed: 19/07/2014).
- Linz, M. (2006): Was Wird Dann Aus Der Wirtschaft?: Über Suffizienz, Wirtschaftswachstum Und Arbeitslosigkeit, Wuppertal: Wuppertal-Inst. Für Klima, Umwelt, Energie.



- Linz, M. (2004): Weder Mangel Noch Übermaß: Über Suffizienz Und Suffizienzforschung, Wuppertal: Inst. Für Klima, Umwelt, Energie.
- Muir, K. (1986): William Shakespeare, King Lear, London: Penguin.
- N24 (2014): Umfrage: Flexible Arbeitszeiten Erhöhen Die Loyalität, URL: <http://www.n24.de/n24/Wissen/Job-Karriere/d/4140192/flexible-arbeitszeiten-erhoehen-die-loyalitaet.html> (accessed: 19/07/2014)
- Rockström, J. / Steffen, W. / Noone, K. / Persson, A. / Chapin III, F. S. / Lambin, E. F. / Scheffer, M. / Folke, C. / Schellnhuber, H. J. / Nykvist, B. / de Wit, C. A. / Hughes, T. / van der Leeuw, S. / Rodhe, H. / Sörlin, S. / Snyder, P. K. / Constanza, R. / Svedin, U. / Falkenmark, M. / Karlberg, L. / Corell, R. W. / Fabry, V. J. / Hansen, J. / Walker, B. / Liverman, D. / Richardson, K. / Crutzen, P. / Foley, J. A. (2009): Planetary Boundaries: Exploring the Safe Operating Space for Humanity in Ecology and Society, Stockholm: RA.
- Satell, G. (2013): Why Apple's Future Is Uncertain, URL: <http://www.forbes.com/sites/greg-satell/2013/04/24/why-apples-future-is-uncertain/> (accessed: 19/07/2014).
- Sachs, W. (1999): Planet Dialectics: Explorations in Environment and Development, London: Zed Books Ltd.
- Scherhorn, G. (2011): Commons, URL: <http://band1.dieweltdercommons.de/essays/gerhard-scherhorndie-welt-als-allmende-fur-ein-gemeingutersensitives-wettbewerbsrecht/> (accessed: 19/07/2014).
- Schneidewind, U. (2013): Damit Gutes Leben Einfacher wird: Perspektiven Einer Suffizienzpolitik, München: Oekom.
- Schneidewind, U. / Zahrnt, A. (2013): Damit Gutes Leben Einfacher wird: Perspektiven Einer Suffizienzpolitik, München: Oekom.
- Schneidewind, U. / Palzkill, A. (2012): Suffizienz als Business Case, Wuppertal: Wuppertal Institut für Klima, Umwelt, Energie GmbH.
- Schumpeter, J. A. (1943): Capitalism, Socialism, and Democracy, London: G. Allen & Unwin.
- Scinexx (2014): Wie Fair Ist Das Fairphone?: Experten Bewerten Die Ansätze Des Ersten Fair Produzierten Smartphones, URL: <http://www.scinexx.de/wissen-aktuell-17706-2014-06-25.html> (accessed: 19/07/2014).
- Segal, J. (2003) Graceful Simplicity: The Philosophy and Politics of the Alternative American Dream, Berkeley: University of California Press.
- Sen, A. (1983): Poor, Relatively Speaking, Dublin, Ireland: Economic and Social Research Institute.
- Senor, D. / Singer, S. (2011): Start-up Nation: The Story of Israel's Economic Miracle, New York: Twelve.

- Skidelsky, R. J. A. / Pfeiffer, T. / Skidelsky, E. (2013): *Wie viel ist genug?: Vom Wachstum Zu Einer Ökonomie Des Guten Lebens*, München: A. Kunstmann.
- Solomon, R. C. (2004): Aristotle, Ethics and Business Organizations, in: *Organization Studies*, Vol. 25 / No. 6, 1021–1043.
- Solomon, R. C. (1999): *A Better Way to Think about Business: How Personal Integrity Leads to Corporate Success*, New York: Oxford University Press.
- Solomon, R. C. (1993): *Business and the Humanities: An Aristotelian Approach to Business Ethics*, in: Donaldson, T. J. / Freeman, R. E. (eds.): *Business as a Humanity*, New York: Oxford University Press, 45–75.
- Sorge, P. (2013): *Wahldebakel – Die Grünen Sind an Ihren Fehlern Schon Selbst Schuld*, URL: <http://www.cicero.de/berliner-republik/gruene-das-wahldebakel-ist-selbst-verschuldet-juergen-trittin-goering-eckardt/55886> (accessed: 19/07/2014).
- The World Bank (2014): *GDP Growth (annual %)*, URL: <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG> (accessed: 16/07/2014).
- Wagner, K. (2013): *The Major Anniversary Apple Just missed*, URL: <http://fortune.com/2013/04/02/the-major-anniversary-apple-just-missed/> (accessed: 19/07/2014).
- Wolf, U. (2002): *Aristoteles' "Nikomachische Ethik"*, Darmstadt: Wissenschaftliche Buchgesellschaft.