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Market Failure Approach

Graceful Simplicity

CORPORATE RESPONSIBILITY IN THE TELECOM SECTOR

CSR Profiling

Corporate Responsibility Standards

Privacy Matters

EDITED BY

ALEXANDER BRINK ● DAVID ROHRMANN

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CORPORATE RESPONSIBILITY IN THE TELECOM SECTOR

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Content

CORPORATE RESPONSIBILITY IN THE TELECOM SECTOR

Corporate Responsibility Standards

High Corporate Responsiblity Standards and Reallocated Monitoring Costs

Implementing a Mechanism to Ensure Standards in the Supply Chain

Jan-Frieder Damm and Felix C. Schweren

Keywords

Sectoral Contract, Corporate Responsibility, Competitive Market, Supply Chain, Production Standards

This paper presents a new game theoretical approach to reduce and reallocate the costs of monitoring supply chains in the telecommunication industry. The complex structure of supplier relations is understood as tiers of production. These can be seen as markets in which the suppliers act as competitors. This structure opens the approach to shift monitoring costs from the producer to the actors on the lower tiers where compliance with an existing code of ethics is a requirement so as not to suffer from market exclusion. The suppliers have an incentive to identify competitors who defect in order to benefit from their foreclosure. Thus, the monitoring costs which are shifted from one final producer reverse the supply chain. By using game theoretical modelling, this structure of individual incentives is backed and proven to function under certain assumptions. The paper's approach is of relevance for the telecommunication industry, which becomes apparent when considering joint efforts in the branch.

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1. The Role of Corporate Responsibility in the Supply Chain

In the last decades, the importance of corporate responsibility (CR) has increased significantly. The media, the public, and politics expect especially transnational corporations to engage in sustainable and caring business practices. Consequently, the vast majority of corporations employ a code of conduct as the basis for their work (cf. Schelhove/Heydenreich 2012: 17). Nevertheless, this appears to be insufficient. Especially in the media and the public, the idea is broadly spread that these companies must make sure that not only their own employees respect certain CR standards, but other stakeholders do, too. This is true particularly for their supply chain. When suppliers of established corporations are disreputable for reasons of environmentally unfriendly or inhumane working conditions, this often backfires for the large corporation. This could be observed when Apple was publicly blamed for the poor working conditions of Foxconn, its Chinese supplier for the iPhone and iPad (cf. Biermann 2011). However, this example reveals one more thing about the role of CR: It might be a topic that heats up public debate, but it is apparently not yet highly significant in an economic sense: Apple did not suffer from the Foxconn scandal economically. The same holds true for other corporations, as for example Primark.

From these examples, the question arises of what these companies can do to fulfil the external expectations about CR standards in their supply chain. When we talk about such management of the supply chain, we refer to The Blackwell Encyclopaedia of Management: "Supply Chain Management is the Formation of Long-Term Partnerships or Relationships with Suppliers" (Slack 1997: 211). The supply chain includes all companies that are involved in the production process of one product that the company sells to consumers. Achieving a high degree of compliance with CR standards of the suppliers appears to be a huge task. Its great economic significance justifies the need to find a way to cope with this challenge. We see in corporate responsibility a fast-growing issue. The public and politics increase the pressure on transnational corporations. In the near future, we assume that the general business environment will develop in a way that makes it necessary for companies to handle their supply chain in a way that considers CR standards of upmost importance. This might be due to the increased public awareness of CR that will have direct economic consequences for the companies, or due to political legislation and regulation aiming at an improvement of CR standards in the supply chain. Arguably, these may not be the only causes. Many different developments could lead to such situations that put the manufacturers in a position where they have no other choice than to enforce CR standards in the supply chain. It is also conceivable that the manufacturers will voluntarily decide to enforce certain CR standards throughout the production process. Either way, we proceed from the assumption that the final producers have a real interest in managing their supply chains in a way that guarantees compliance with the established CR standards.

In this paper, we will present a way for companies to guarantee compliance with CR standards. We will first identify the concrete challenges any final producer faces when he decides to enforce compliance with CR standards throughout the production process. These challenges will be illustrated by describing the relation between the manufacturer and his suppliers by means of the principal-agent theory. We will emphasise the importance of the direct competitors of all suppliers in order to develop a mechanism that works in accordance with the demands of the final producer. The principal idea is that the supplier's direct competitors shall be incentivized to report misconduct to a whistle-blower hotline operated by an independent third party. What will trigger them to do so is the fact that those suppliers take the position of non-complying actors in the supply chain. We will embed this mechanism in game theoretical analysis and rational choice theory in the second section of the paper. This will help to understand that our mechanism is the result of the individual actor's rational behaviour.

2. *The Principal-Agent Model as a Theoretical Framework to Understand Challenges in Supply Chain Governance*

Before presenting our own work on how final producers can efficiently manage their supply chain with regard to the compliance of CR standards, we must first identify the major challenge they face doing so. Why is it actually so difficult for final producers to survey whether their suppliers stick to certain CR standards? To answer this question, we will have a look at the standard way of depicting a supply chain.

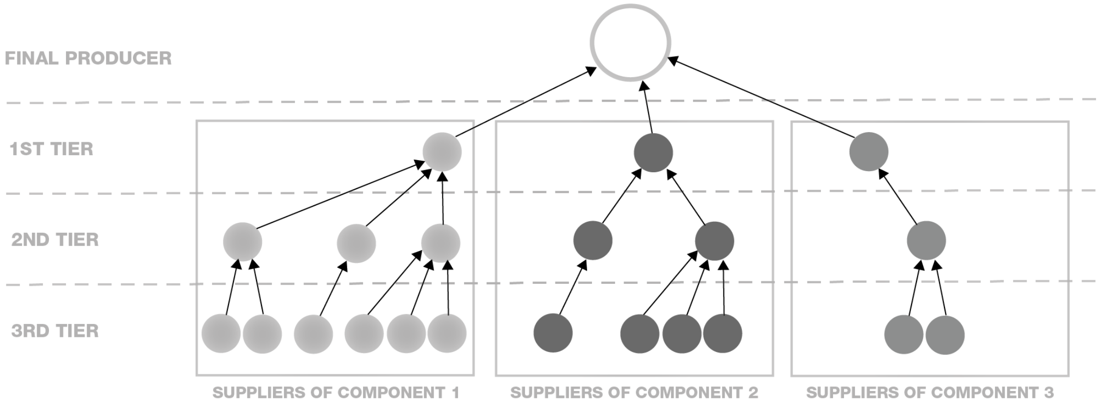

FIGURE 1: DEPICTION OF THE SUPPLY CHAIN (SOURCE: OWN ILLUSTRATION)

We see that the lower the tier, the more complex the supply chain is. This is obvious as most suppliers purchase goods and services on their part from more than one supplier. Regarding this, implementing CR standards leads to a two-dimensional governance problem: First, the final producer must make sure that all suppliers comply with these standards. This not only affects the top-tier suppliers but also those on lower tiers of production – his supplier's suppliers, so to speak. For large and multinational corporations, the number of suppliers can be extremely high. Identifying all of them alone be seen as a massive challenge (cf. Schelhove/Heydenreich 2012: 19). Moreover, the final producer has to find a way to control his suppliers' actions.

Jensen and Meckling have developed a theory about agency relationships for similar situations which is called principal-agent theory:

> "We define an agency relationship as a contract under which one or more persons, [the principals], engage another person, [the agent], to perform some service on their behalf which involves delegating some decision making authority to the agent. If both parties to the relationship are utility maximizers, there is good reason to believe that the agent will not always act in the best interest of the principal" (Jensen/Meckling 1976: 5).

This description precisely applies to our examination of the relation between a final producer and suppliers. The two parties conclude a contract that defines the required CR production standards. Unfavourably for the final producer, he cannot know whether the supplier really complies with the contract. In this sense, the contract is incomplete (cf. Williamson 2002: 174). If the supplier is a profit-seeking actor and compliance with the CR standards is costly, he will not comply if, presumably, the final producer will not find out. That is to say, he would utilise the information asymmetry between himself and the final producer. Consequently, the principal – in this case, the final producer – must make use of certain control mechanisms in order to guarantee the supplier's compliance: "The principal can limit divergences from his interest by establishing appropriate incentives for the agent and by incurring monitoring costs designed to limit the aberrant activities of the agent" (Jensen/Meckling 1976: V.3: 3). Obviously, the final producer is stuck in a situation where he has to incur monitoring costs to be sure that the supplier complies with the CR standards even if he has already paid for the supplier's compliance. What might look like an undesirable side effect at first glance becomes quite problematic for the final producer when considering the high number of suppliers in the complex supply chains of transnational corporations such as telecommunication companies. These kinds of companies face immense monitoring costs that make the enforcement of CR standards throughout the supply chain a real Herculean task. We will present an alternative approach to enforce compliance with CR standards. In our model, this process starts with all the final producers entering an initial contract containing the agreement not to purchase components from suppliers who do not meet the required CR standards. From this point on, we will name this type of contract "sectoral CR contract". We will show that this is to the final producers' advantage as it significantly increases their bargaining power. Indeed, first signs of such collaboration can be observed in the telecommunication industry:

> "At the beginning of 2010, Deutsche Telekom, France Telekom and Telecom Italia initiated the so called Joint Audit Cooperation (JAC) in order to accomplish supplier auditing together. […]. At present [2012], eight telecommunication companies have joined the JAC: Belgacom, Deutsche Telekom, France Telekom, KPN, Swisscom, Telecom Italia, Telenor and Vodafone" (Schelhove/Heydenreich 2012: 17).[1]

1 Trans. by Schweren and Damm

To place our argumentative procedure on a solid basis, it is necessary to start with some basic assumptions. Two of them are fundamental to secure coherence in the mechanism we want to develop: (1) We assume all actors in our model to be profit seeking and acting rationally in specific fields, such as consistency in choice, self-interested behaviour and perfect information about the actor's own preferences and the range of choices he faces (cf. Caldwell 1993: 55f.). This means every actor decides on the basis of those means. Effectively, this says that the actor is aware of all of the feasible actions and ranks these actions according to his preferences. This preference order is never violated by his actions. (2) The theoretical framework consists of effective supplier markets. This term implies a competitive environment and excludes possible market failure (cf. Melody 2006: 2f.).[2]

In this paper, we differentiate among specific groups of actors: The final producer is the connection between the value-creation process and the consumer. He sells the end product. Every actor involved in the value-creation process is a supplier. Suppliers build components, deliver raw material or provide services. Taking as an example the creation of a mobile phone, a component could be a display which is bought by the final producer for the composition of the final product. However, a component could also be an element of the display itself. We will name the suppliers who sell their goods and services to the final producer "top-tier" or "first-tier suppliers". Accordingly, the suppliers selling their products to these first-tier suppliers are second-tier suppliers and so on. For every supplier, there exists at least one direct competitor which is able to replace this supplier in the value-creation process. Together they form a supplier market.

3. Reallocating Monitoring Costs

3.1 The High Complexity of the Supply Chain

The principal idea of our mechanism is to introduce institutional competition of self-controlling markets to the supply chain. The current discussion of supply chains tends to disregard all actors that are not directly involved in the process of production. This is reasonable, as a model by definition must always simplify. Still, we do want to consider one other kind of actor in order to understand

2 We are aware that assumption (2) does not apply to all supplier markets in telecommunication industry. This is the case as some major suppliers, for example Samsung, Foxconn and Pegatron, merged high market power which makes it appropriate to assume a certain market failure in this industry.

the dynamic markets any supply chain is embedded in. Namely, we consider direct competitors of all suppliers to have a considerable impact on the function and development of the supply chain. We hold that reciprocal interaction between the suppliers and their direct competitors strongly affects the supplier's behaviour.

Taking a three-tier supply chain, where every component or resource of service is offered by four competing suppliers, the total number of actors rises to 42 + 43 + 44 = 336. Obviously, this manner of looking at a supply chain makes things complex very quickly (cf. Schelhove/Heydenrich 2012: 19). What is the benefit of considering the direct competitors of the suppliers? It allows us to propose that the final producer could – instead of monitoring all of his suppliers – focus on his suppliers' weak points, namely their competitors, and use them as leverage in order to be sure that all suppliers act according to CR standards.

3.2 Competitors as Decisive Actors in the Supply Chain

When speaking of the suppliers' competitors, we refer to those companies and only those that compete directly with the supplier for orders from the buyer. Under the assumption that they are profit-seeking actors, they have an incentive to replace competing suppliers and to take their place in the supply chain. They might even be willing to invest in legal business practices that enable them to replace a competing supplier as long as those costs do not exceed the profits from receiving the offer. In an industry where goods and services are offered by several competitors, competition in the supplier markets strengthens the position of the final producer (cf. Hongmin Li 2012: 1f.). Ever since Adam Smith described the system of competition in free markets, this has been understood as the main trigger of efficiency and progress (cf. Smith 1904: 51ff.). Smith uses the 'invisible hand of the markets' as a metaphor for the phenomenon that actors act according to their self-interest and by doing so indirectly contribute to the other actors' benefit. Basically, the mechanism we want to introduce to the diverse supplier markets corresponds to this metaphor: It should establish that the actors, as if they were driven by an invisible hand, comply with the CR contract so that the final producer receives a creation of value that is produced in the way he demands. As a first step, this way of looking at the supply chain leads to a different understanding of the institutional arrangements. Individual suppliers as irreplaceable actors are pushed to the background in our concept. Instead, we focus on supplier markets as a whole, as can be seen in the depiction below.

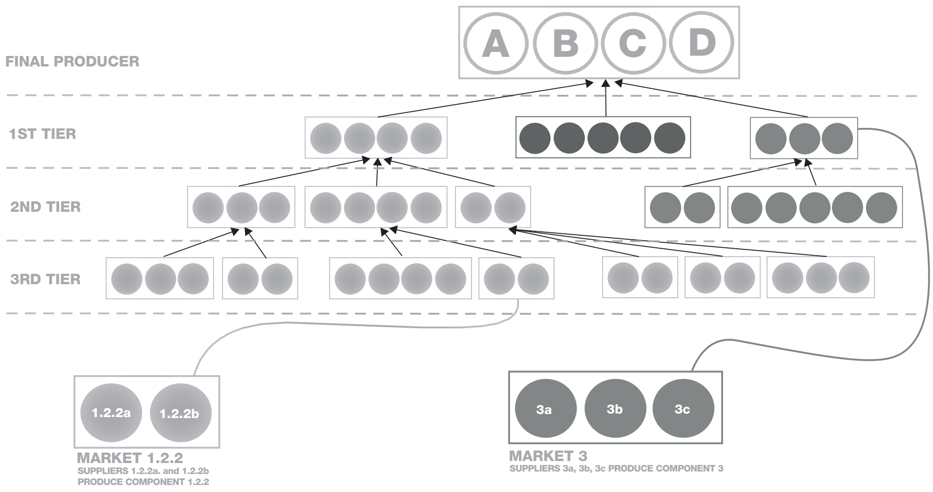

FIGURE 2: A WAY TO DEPICT THE SUPPLY CHAIN WITH RESPECT TO COMPETITION IN SINGLE SUPPLIER MARKETS ON EVERY SINGLE TIER (SOURCE: OWN ILLUSTRATION)

Figure 2 shows the supply chain of an industry with the four final producers A, B, C, and D. The several production tiers show that markets instead of individual suppliers define the image in this illustration. In practice, this whole system could work in the following manner: Final producer A is one of x final producers that need amongst other things the specific component 3 in order to create a product. For this component 3, there is a market we name market 3 that again contains y suppliers who all produce component 3. For this reason, they are labelled supplier 3a, 3b and so on. They again must purchase components for the creation of their product, which they buy from second-tier suppliers. Supplier 3a might need a component 3.1 that is offered by n suppliers in market 3.1, which are labelled 3.1a, 3.1b and so forth. This nomenclature helps to maintain some technical overview over the great number of suppliers that already appear in rather simple supply chain models.

3.3. Achieving Compliance via a Market Based CR Mechanism

How does this new understanding of the supply chain help to implement compliance with a CR contract throughout the whole production process? Even if competition as a general tendency encourages the selling side of the market to put a lot of effort into improving their products, this will not do the trick in our case. Competition will definitely lead to a situation where the buyer will most likely be able to purchase products that fulfil those of his requirements that are easily verifiable. However, this is not the case when it comes to compliance with the CR contract. Only if the final producer is willing to invest in a very costly monitoring system does compliance with the CR contract result in a competitive advantage and become a winning strategy for the suppliers. As long as the final producers do not survey the suppliers, they might ask for compliance but cannot rely on it. In this case, compliance is a losing strategy for the competitors. Producers undertake an investment that cannot be verified and therefore does not lead to a competitive advantage. Obviously, the final producer must introduce stronger incentives for CR compliance in the supplier markets.

One important part of such an incentive is the sectoral CR contract between the final producers which states that they will purchase components from only those firms that comply with the required CR standards. Consequently, if the non-compliant behaviour of one supplier is detected, this leads to that supplier's exclusion from all current and potential orders in the industry. To speak in terms of game theory, this would mean that the profit allocated to a non-cooperative player is available for redistribution between the remaining players in the market. This incentivises all competitors to blow the whistle on non-compliant suppliers and invest in monitoring each other. This results in a new form of monitoring the supply chain which – if the mechanism is once installed – works for all the markets in the supply chain without constant observation, respectively spending, of the final producers. When the final producers agree on a sectoral CR contract, they acquire a great deal of power in their relationship with the suppliers. The act of excluding non-complying actors is the first condition for our mechanism. The second one can be derived from the characteristics of the actors, which we assume to be of egoistic and profit-seeking nature. The actors have an interest in seeing one of their direct competitors being excluded from the market and taking his place in the supply chain in order to raise their profits. Those two conditions together lead us directly to the mechanism we are about to propose: The final producer could escape the dilemma of trading off between costly monitoring and the risk of being tricked by quasi delegating the monitoring expenses to the supplier's direct competitors. There are several reasons that make us think that this will result in a highly effective mechanism:

First, a system in which direct competitors monitor each other is somewhat more efficient than no system at all. This is because we can assume that monitoring costs are higher if the monitoring actor does not know much about the business of the actor whose work he wants to examine. These costs decrease if he is an expert in the business of the actor he is monitoring. This is reasonable because the less the monitoring party already knows about the actor's business, the more he must invest in expertise in order to be able to understand what the supplier is doing and whether he does it well. We can conclude that direct competitors might need to invest much less in monitoring activities than the final producer (cf. Williamson 1979: 246). The deeper the supply chain, the less the final producer might understand about the agent's business. Direct competitors, however, are highly aware of their competitor's business. This enables them to gather knowledge about their competitors quite easily. Furthermore, such monitoring might not even be necessary in most cases. Due to the fact that competing actors are in the same market as the supplier, they may already know a lot about the other side's business routines. Additionally, information spreads much more quickly between the actors of one market than across the entire supply chain. Interactions on a personal level between the competing actors and close connections through common business partners may do the rest. Finally, the competing actors have a strong incentive to blow the whistle on their fellow competitors as they can thereby target their profits.

We adduce as an instance a market of cell phone display producers with one actor who earns an amount of 100 units per year for supplying a buyer with displays. Under the assumption that his deviation from the CR contract was common knowledge in the market of display producers, his competitors would tell his buyer about this breach of the rules.[3] If this buyer was a final producer, he would cancel his orders and commit to a competitor instead. Alternatively, his buyer might be another supplier. Then, this one would also cancel his orders in the same way. If the buyer acted in any other way, he would risk being eliminated from the supply chain as well. This is because the other display producers would inform the final producer if necessary.

In another case, an actor could deviate from the CR contract if this contract was not common knowledge in the market. Here, one competitor who had the second-best offer would rationally be willing to invest up to 99 units to reveal the cheating in order to eliminate the actor and replace him. If such a mechanism is established in the various markets, the risk of exposure for all suppliers is very high.[4] As a result, we obtain an idea of a supply chain where market competition between the suppliers and their fellow competitors leads to a stable market system that penalises deviation from the sectoral CR contract. Non-complying actors must consequently fear being exposed. This

3 Of course, in order to performing this action, the competitors still had to pay some institutional costs that we will focus on later in this section when we look at a whistle-blower hotline.

4 A more detailed approach to these game theoretical strategies follows in section 3 of this paper.

system incentivises the suppliers to comply with the CR contract to avoid the risk of exclusion. The final producer clearly is the first beneficiary of this mechanism. Monitoring as an institution of the supply chain is effectively redefined. What originally appeared to be of interest for one final producer can now be designed as a decentralised method. In the following, we identify additional measures the final producer can undertake in order to stabilise this system of monitoring.

3.4 Operating a Whistle-blower Hotline and Managing Auditing Costs

Without any additional arrangements by the final producer, the mechanism introduced could easily result in chaos. This is due to the fact that the mechanism is based on a rather high degree of healthy reciprocal suspicion. The whole setting might lead to a situation where all actors start to denounce their direct competitors on the mere suspicion of non-compliance. Evidently, the final producers must implement specific institutions to prevent such adverse effects. Two institutions could do the job here: First, the final producers should launch a joint whistle-blower hotline. This would allow the competitors to report non-compliance directly to a centrally located authority. The hotline must be operated by an independent third party that has a certain capacity of audit teams which are in charge of following up on all allegations. Indeed, the final producers must bite the bullet and invest in such an infrastructure. However, the costs of running a whistle-blower hotline are worlds apart from the immense costs that would result from monitoring every supplier. Such hotlines already exist in practice. Siemens, for example, operates a whistle-blower hotline named "Tell Us" that "gives all employees and external stakeholders a secure mechanism for the reporting of compliance violations" (Siemens.com Global Website © Siemens AG). The Siemens whistle-blower hotline is operated by an independent third-party attorney.

By introducing a second institution, the final producers must find a way to incentivise the suppliers not to use the whistle-blower hotline without good reason. If this can be achieved, the hotline will be highly effective as only those competitors who really do not comply with the sectoral CR contract will be reported. One way to achieve this goal is by implementing the following rule: The final producers should bear the costs of only those investigations that lead to the successful, evidence-based exclusion of a non-complying actor. By contrast, the costs of investigations initiated by false accusations must be paid by the accuser. This system guarantees a high degree of effectiveness in that the mechanism of reciprocal control will not be misused by the actors.

4. *Compliance as Individual Rational Choice*

4.1 A Strategic Form Model for Reaching Compliance

To deepen the understanding of the above-presented market-based CR mechanism, it is necessary to model it in a more formal way. Although means of non-cooperative game theory will be applied in this paragraph, it is not necessary to have more than very basic knowledge in game theory to understand the following model. The purpose of our reference to game theoretical means in this section is based on one assumption of David M. Kreps, namely that: "[…] [T]he point of game theory is to help economists understand and predict what will happen in economic contexts" (Kreps 1990: 5). So, the appeal of these means should not lie in their formal complexity, but in their explanatory and predictive power.

As assumed before, market competition is present on every single tier of the supply chain. All actors in one market are in the position to choose an action strategy in the competitive situation presented which leads to a defined outcome or payoff. This interpretation of the market situation in the supply chain contains the three components necessary to build a game theoretic strategic form model:

- a list of participants, or players
- for each player, a list of strategies
- for each array of strategies, one for each player, a list of payoffs that the players receive (Kreps 1990: 10)

The strategic form game reflecting the mechanism of self-enforcing CR contracts in the supply chain is defined as following:

- ad (1) The players in this strategic form game are represented by the number of different actors competing in one market of the supply chain, for example, the market of chip suppliers for the cell phone producing companies. If there are i different suppliers, the set of players is: $\mathbb{N}=\{S_1,S_2,\ldots,S_i\}$.
- ad (2) The action set for supplier S_i is defined as $A_{Si}=\{\theta_1,\theta_2,\theta_3,\theta_4\}$ with θ_x ($x \in \{1,2,3,4\}$) representing one of the following strategies in the single games with each competitive supplier:

- θ_1: S_i announces the strategy to comply with the CR contract, and truly acts on it;
- θ_2: S_i announces the strategy to comply with the CR contract, but does not act on it;
- θ_3: S_i announces the strategy not to comply with the CR contract, but acts on it;
- θ_4: S_i announces the strategy not to comply with the CR contract, and does not act on it
- whereas θ_3 and θ_4 are not rationally feasible under the assumption, that announced (and certainly real) defection with the CR contract will lead to direct market foreclosure if it is reported to the final buyer.[5]
- ad (3) The payoffs are designed as defined numbers mirroring the possible net benefit a supplier can gain by entering into a contract with the buyer. It is important to understand the payoffs as setting an ordinal ranking of the different strategies. This is the case as it is highly complex to cardinally represent the different benefits of the multitude of possible supplier-buyer contracts. In this strategic game, we just refer to one strategy being more worthwhile or less worthwhile for the competing suppliers from a rational point of view.

Considering all the assumptions and prerequisites mentioned above, we take a closer look at the game taking place between two suppliers (S_1 and S_2) who are both interested in entering a contract with the same buyer. To make the contract possible, S_1 and S_2 have to show compliance with the CR contract of the buyers. Meeting the standards required by the contract will raise the cost of providing goods and services for the supplier. Providing the service or good under compliance will lead to a less worthwhile profit (let us assume a profit of 8) than under non-compliance (we assume 10). So, payoffs of four, respectively five benefit units are the expected payoffs for the competing suppliers[6] if they both play θ_1, respectively θ_2. Those are the cases in which two competing suppliers play the same strategy at the same time.

But the crucial cases, giving emphasis to the core part of this paper, are those when the two players meet playing different strategies. Those cases will lead to payoffs as shown and highlighted in Figure 3 and will be clarified in more detail below.

5 θ_3 and θ_4 are listed here just for reasons of completeness.

6 We assume that both actors have an equal chance to enter a contractual relation with the buyer (p=0.5). Also, both actors are risk-neutral.

S_1 / S_2	θ_1	θ_2
θ_1	4 , 4	8 , 0
θ_2	0 , 8	5 , 5

FIGURE 3: STRATEGIC FORM GAME BETWEEN TWO COMPETING SUPPLIERS S_1 AND S_2 (SOURCE: OWN ILLUSTRATION)

From a rational point of view, S_1 and S_2 could benefit the suppliers the most if they mutually agreed on always playing θ_2, which means both signaling compliance with the required CR standards, but collusively deciding not to meet them to lower costs. Roughly speaking, the collusive behaviour could increase their benefit on the costs of the buyer who enters the contract expecting and monetarily buying CR compliance. Trying to reveal the strategy played by the actors, the final producer faces the problem of immense monitoring costs as seen in section 2. But this Pareto-optimal strategy[7] combination is not a stable Nash equilibrium. A Nash equilibrium is a state in which no actor has an incentive to change his own strategy regarding the other player's strategy choice: "[...] an array of strategies, one for each player, such that no player has an incentive (in terms of improving his own payoff) to deviate from his part of the strategy array" (Kreps 1990: 26 ff.). It is not, because both S_1 and S_2 have an individual incentive to change their behaviour and defect from the collusive strategy combination $\{\theta_2, \theta_2\}$. This incentive exists as S_1 as well as S_2 can leave actors better off by individually deciding to play θ_1 and to report the competitor's non-compliance with the CR contract in order to profit from his market exclusion. It is not rational in the long term to play θ_2 because every single supplier fears being reported by a competitor for violating the contract. To refer back to Figure 3, both suppliers individually tend to change the initially announced collusive strategy combination $\{\theta_2, \theta_2\}$ to profit from the (expected) higher payoff of (0,8) under $\{\theta_2,\theta_1\}$ and (8,0) under $\{\theta_1, \theta_2\}$. Thereof, we derive that the dominant strategy for the competing actors in the strategic form game between S_1 and S_2 in the long term is always to play θ_1. In this single game, $\{\theta_1, \theta_1\}$ is the dominant strategy. Taking into account that the above-mentioned rational strategy of the individuals in the game between S_1 and S_2 is representative for every pairing of the

7 A strategy is Pareto-optimal if no single player can achieve a better result without another player being placed in a worse position (cf. Holler/Illing 1993: 25).

elements of N, there is a stable Nash equilibrium in the single games between the competing actors. This equilibrium is Pareto-inferior for them but guarantees every supplier's compliance with the sectoral CR contract on the basis of rational strategy choice.

Setting this intermediate result in a bigger framework, the whole market of suppliers reaches a state as described in Figure 4.

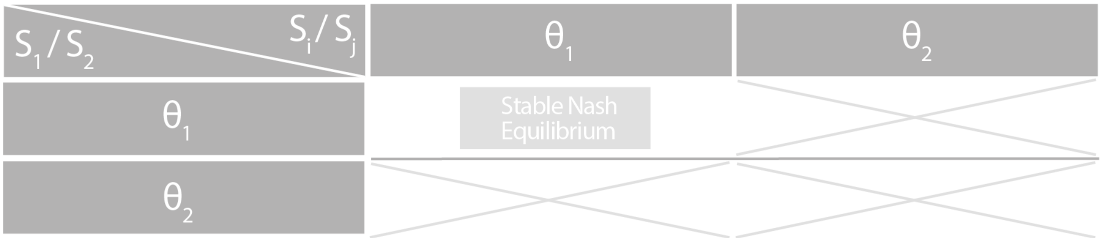

FIGURE 4: EXEMPLARY MARKET OF THE SUPPLY CHAIN WITH THE GAME-THEORETIC PAIRINGS S_1/S_2 TILL S_i/S_j (SOURCE: OWN ILLUSTRATION)

This figure visualises which overall strategy combinations lead to a stable Nash equilibrium in the long term for all possible pairings in one market of the supply chain. The S_1/S_2-game's dominant strategy is the combination $\{\theta_1,\theta_1\}$.[8] It leads to a stable equilibrium of compliance in this specific game between two competing suppliers. This insight can be transferred as the case for all the pairings from S_1/S_2 till S_i/S_j where $\{\theta_1,\theta_1\}$ is always the stable state in the long term. The dominant strategy leading to the stable equilibrium of compliance is valid for every single pairing in every single market on all tiers of the supply chain. Conclusively, mutual compliance with the sectoral CR contract will be reached just by means of competition between rational suppliers in effective markets.

To mirror a real business situation more appropriately and extend the proof of theoretical applicability of our developed mechanism, we will now take time flow into account and model what we have seen above in an extensive form game (cf. Kreps 1990: 13ff.).

8 For further information on dominance arguments as a solution technique in non-cooperative game theory see: (Kreps 1990: 26ff.).

4.2 Taking Time into Account – An Extensive Form Game

The reason to exceed the field of strategic form games is that in "[…] an extensive form game, attention is given to the timing of actions that players may take and the information they will have when they must take those actions" (Kreps 1990: 13). That focus allows us to model a situation of competing suppliers in one market more appropriately as we can start from the point where for example S_1 is already in a contractual relation with a buyer. In this case, S_2's incentive to detect his competitor's potential defection from the CR contract is increased even more.

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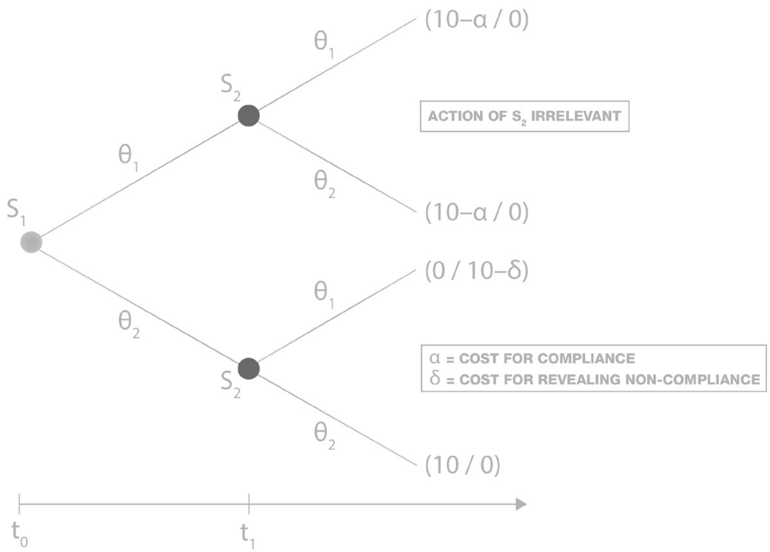

FIGURE 5: EXTENSIVE FORM GAME OF THE TWO COMPETING SUPPLIERS S_1 AND S_2 (SOURCE: OWN ILLUSTRATION)

The situation on hand in t_0 is defined by the fact that S_1 already has a supply contract with the relevant buyer. This contract assigns him fixed revenue; we assume 10 benefit units. At that point of time, S_1 has to choose whether to play strategy θ_1 and to comply with the contract or to play θ_2 and not to meet its requirements. But S_1 has to take into account and anticipate how his competitor S_2 will react to his individual choice of strategy. To figure out the behaviour of the two competitors in an appropriate way, backward induction, a game theoretical refinement for simple equilibrium solutions, will be applied. Backward induction, as applied below, describes the way to figure out the individual actor's optimal sequence of action. The optimal actions can be found by reasoning backwards all possible decisions at every single point of time. This reasoning takes the competitors' possible action into account (Kreps 1990: 110ff.).

Of the four generally feasible payoff combinations, the most attractive outcome for S_1 would be (10/0), because for S_1's possible payoffs applies $10>(10-\alpha)=(10-\alpha)>0$.[9] So initially S_1 would choose θ_2. But S_1 also anticipates S_2's strategy: Be it the case that S_1 plays θ_2, S_2 will individually choose θ_1 to set himself better off with the payoff of $(10-\delta)$, as $(10-\delta)>0$. In other words, by revealing his competitor's non-compliance with the required CR standards, S_2 can take the place of his competitor and generate profit in his stead. With this perspective, it is rational for the competitor to invest the revealing cost δ. The anticipation of S_2's above-explained rational strategy choice in t_1 makes it initially irrational for S_1 to play θ_2.

Therefore, we can assume that S_1, having a supply contract, will always play θ_1 and comply with the CR contract, as he fears being excluded by his competitor in case he plays θ_2. The competitor who is not bound to a supplier contract has the strong incentive to reveal any potential collusive and defective behaviour of his market competitors. This incentive is very strong because it enables the actor to possibly enter business relations with a buyer.

5. *Conclusion*

As seen in the previous section, all suppliers in the supply chain have individual incentives to comply with the CR contract. Additionally, they, as well as their direct competitors, have an incentive to monitor each other's CR compliance. The identification of this mechanism is what we aimed for

9 To be in accord with our assumption that we model a situation in effective markets with real competition, it has to be the case that $\alpha<10$ and $\delta<10$. Otherwise, entering the contract in the first place would violate the profit-seeking nature of the actors.

at the beginning of the paper. Although some parts of this modelling need further refinement, we are convinced that the model's strengths lie in its predictive and explanatory power.

We are aware of the fact that criticism can be passed on our model from different sides, as for example the question of why a group of final producers should have an interest in obliging the multitude of suppliers to meet CR standards in their production at all. One could imagine external institutional requirements, such as EU laws or changes in consumer preferences. However, it is not the purpose of this paper to give an ample answer to this question at this point, but to provide a theoretical mechanism to enforce some CR standards in supply chains once the necessity is given.

The above-presented new systematisation of the supply chain and the resulting market mechanism to secure certain CR standards in the production process have, from our perspective, an impact on further research: It is clearly the perspective on how to manage the process of monitoring that is new in this paper, not the elements our approach is composed of. The existing reconstruction of supply chain relations as principal-agent problems, the resulting problem of immense monitoring costs as well as inventing a watchdog institution, here called whistle-blower hotline, link our approach to what could be called prevalent economic thinking. Combining these elements with our new systematisation of the supply chain structure as composed of single markets exceeds the field for which this paper can be seen as relevant. This is even truer as our model can be backed by game theory as a means of clarifying and systemising individual behaviour.

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CORPORATE RESPONSIBILITY IN THE TELECOM SECTOR

Privacy Matters

Privacy Matters

Why Digital Telecommunication Companies Should Protect their Customer's Privacy

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Keywords

Privacy Protection, Unique Value Proposition, Autonomy, Digital Telecommunication Sector, Threema, ZenMate

This paper provides an ethical as well as a strategic foundation for the protection of privacy as a unique value in the telecommunication sector. We provide a detailed definition of the term privacy, also taking into account its origins. Based on a specified definition of privacy for the digital telecommunication sector, relevant sources of conflicts and trade-offs are pointed out. Next, we focus on the ethical legitimation of privacy and show that it is a necessary condition for the autonomy of individuals. By analysing different concepts of autonomy, we highlight why autonomy and, therefore privacy are worth protecting. From this, we derive normative implications for the telecommunication sector. After proving that there is a moral obligation for companies to protect their customers' privacy, we will show that it is also economically and strategically recommendable for companies to do so. We identify several explicit strategic implications for companies to implement privacy in the existing framework. Lastly, we examine two practical examples of communication companies that successfully use privacy as a unique value proposition and evaluate them.

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1. *Introduction*

Imagine that the mailman who delivers mail to your home would open every single letter addressed to you, scan, evaluate, and store it, and then possibly sell the information it includes before he closes it again and delivers it to your door without you noticing the process. What appears to be a crime when it comes to paper-based mail delivered by the post office is daily business when it comes to electronic mail sent via email providers. Modern cyber technology makes it possible to collect, save and evaluate enormous amounts of information. Companies use this possibility to learn more about their (potential) customers and by doing so aim to increase their profits. However, data collecting has reached a dimension that users of digital communication products start to recognise as a threat and an intrusion to their privacy. More than 55% of German Internet users are convinced that their personal data is unsafe or very unsafe on the Internet, while 43% feel threatened by potential misuse and surveillance of their personal data (cf. BITKOM: 22, 28). According to research from ComRes, 79% of the 10,354 people interviewed from nine different countries (Brazil, United Kingdom, Germany, France, Spain, India, Japan, South Korea and Australia) expressed concerns about their privacy on the Internet (cf. ZenMate internal documents).

Arguments against violations of privacy usually conclude that for moral reasons, companies should accept a loss in revenue and an increase in costs in order not to violate their customers' privacy. We will, however, show that privacy protection is a highly underestimated market gap. Based on this thesis, we develop strategies to implement privacy as a unique value proposition (UVP) that companies in the digital telecommunication sector can use as a strategic competitive advantage. One of the very few existing definitions of digital communication is as "any electronic transmission of information that has been encoded digitally and is stored and processed by computers" (The free dictionary 2014: 1). Since this definition is far too broad for our purposes, we focus on digital telecommunication. The main difference between digital and analogue communication is that digital communication, unlike analogue, uses digital media like PCs or smartphones as a communication channel (Grimm 2005: 1). We concentrate especially on communication via e-mail, SMS, chat and similar communication types via digital devices such as smartphones or PCs. We will focus on with the business-to-customer relation, and exclude external actors, such as governments.

First, we develop a detailed definition of the term privacy, also taking into account its origins. Based on a specified definition of privacy for the sector, relevant sources of conflicts and trade-offs are pointed out. Next, we focus on the ethical legitimation of privacy and show that it is a necessary condition for the autonomy of individuals. By analysing different concepts of autonomy, we highlight why autonomy and, therefore privacy, have a unique value that should be protected. From this, we derive normative implications for the telecommunication sector. After proving that there is a moral obligation for companies to protect their customers' privacy, we will show that it is also economically and strategically recommendable for companies to do so and therefore translate the ethical value of privacy into a value proposition that can be measured with economic means. We provide several explicit strategic implications for companies to implement privacy in the existing framework. Lastly, we examine two practical examples of communication companies that successfully use privacy as a UVP.

2. *How to Define Privacy*

2.1 Concept of Privacy

In this chapter, we will approach the concept of privacy, point out its complex dimensions and work out a definition of informational privacy according to the Restricted Access/Limited Control Theory for the scope of this paper. We point out the specific dimensions of privacy in the field of digital telecommunication and identify three main sources of conflict caused by trade-off effects between customers' informational privacy and other claims and values leading towards companies' primary goal of profit maximisation.

What does it mean for something to be private? As Young humorously pointed out, "privacy, like an elephant, is (…) more readily recognized than described" (Young 1987: 2). Defining privacy is challenging: The concept is interpreted differently in various contexts and cultures[1], and it has been changing rapidly, especially since the Internet has added new dimensions to it. One of the earliest definitions of privacy was made by Warren and Brandeis in the 19th century. According to the authors, the right to privacy is defined as "the right to be let alone" (Brandeis/Warren 1890: 1) in the sense of being physically alone. However, this definition does not seem to adequately address today's dimensions of privacy. When browsing the Internet, your privacy can be violated

1 As an analysis about the specific cultural and contextual differences regarding privacy would go beyond the scope of the paper, we will look at privacy from a Western perspective. For further reading, we recommend Moor (1997: 215-227).

even though you are physically alone; for example, your privacy is invaded if the Internet provider saves your browsing history or if your emails are collected and evaluated by a non-recipient. The same is true for speaking on the phone: You can be physically alone, but not experience privacy, for example when you are being spied on or if someone calls who you did not share your phone number with. Since privacy is often given up voluntarily to some degree, it is particularly hard to identify its exact scope. Sharing personal information on Facebook does not necessarily violate your privacy. If, however, someone shares personal data about someone else on Facebook against her will, that second person's privacy is most likely violated.

Privacy is a complex concept that describes things, places and situations, but also decisions and actions. Rössler distinguishes between three types of privacy, each based on a different aspect of the concept: Informational privacy, decisional privacy and spatial privacy. Informational privacy is about restricting other people's access to an individual's personal data that she does not want to share. Decisional privacy is concerned with a person's decisions and actions that she does not want to be influenced in. Spatial privacy means the literal local restriction of access by others, for example to a person's private rooms (cf. Rössler 2001: 25).

Various approaches to defining those different dimensions of privacy have been made since Warren and Brandeis first offered their conception of (spatial) privacy as a matter of physical aloneness. Almost all of them have been accused of being either too wide or too narrow or both,[2] which is why no commonly agreed upon definition of privacy exists. Some approaches are based on the aspect of control and define privacy as "the claim of individuals, groups, or institutions to determine for themselves when, how and to what extent information about them is communicated to others" (Rössler 2001: 22). Others define privacy as a matter of access: There are public areas of an individual's life and private ones, such as the body, the home or the thoughts and opinions. The individual decides which parties gain access to the private areas of her life. Other approaches contrast privacy versus the public and define everything that belongs to the sphere of the home and the house as private (cf. Rössler 2001: 20 et seq.). Since questions of privacy that arise when dealing with digital telecommunication are usually about people's personal information, the focus of this paper lies on informational privacy.

2 For an overview of different approaches to privacy and criticism towards it, see Rössler (2001: 20-23).

2.2 Restricted Access/Limited Control – an Approach to Informational Privacy

Among the variety of conceptions of informational privacy, we picked the one that we think suits our aim of analysing privacy in the digital telecommunication sector best: the Restricted Access/ Limited Control (RALC) definition as introduced by Moor and Tavani in 2001. It combines aspects of a control-based and an access-based approach to privacy. It "distinguishes between the concept of privacy, which it defines in terms of restricted access, and the management of privacy, which is achieved via a system of limited controls for individuals" (Himma/Tavani 2008: 144). This recognises the fact that an individual should be able to protect her privacy actively in some situations (Limited Control) and be passively protected from violations towards her privacy by others (Restricted Access). The notion of limited control involves "choice, consent, and correction" (Himma/Tavani 2008: 145). For example, a person can choose whether or not it is acceptable for her to share pictures of herself in a bikini in a social network. Revealing information voluntarily therefore does not mean a violation of privacy in the RALC framework. This can be done using the consent process, which is supposed to ensure that the act of revealing is actually done voluntarily. Moreover, the correction process is important, because "it enables individuals to access their information with an ability to amend it if necessary" (Himma/Tavani 2008: 145). For example, in order to be capable of managing her privacy, a person should be able to retract pictures that she shared in a social network if she wishes to. "So, in the RALC scheme, individuals can manage their privacy via these kinds of limited controls and thus do not need to have absolute or total control over all of their information" (Himma/Tavani 2008: 145) in order to be private.

According to the RALC definition, a person has privacy in a specific situation with regard to other people if in that situation, she "is protected from intrusion, interference, and information access by others" (Moor 1997: 30). The notion of restricted access implies that there are certain situations in which an individual should be normatively protected from intrusions to her privacy. If a doctor looks at her patient's medical records, that patient's privacy is not violated, because the situation is "naturally private" (Himma/Tavani 2008: 144). If, however, the patient's email provider collects and evaluates an email from her doctor including her medical records, her privacy has been violated. According to RALC, the second situation is "normatively private" (Himma/Tavani 2008: 144) and requires protection in order to guarantee informational privacy.

2.3 Informational Privacy in the Digital Telecommunication Sector

The rise of technological innovation has provided fertile ground for new communication devices. Smartphones and tablet PCs are only a small part of the communication equipment regularly used by a large number of consumers. Most modern communication devices are constantly connected to the Internet. Through data which consumers disclose during communication and transaction processes, new profit-creating opportunities for firms arise through the possibility of massive data analysis, which will be analysed in chapter four. At the same time, studies like the ones mentioned in the introduction show that customers are concerned about their privacy and have an interest in protecting it.

As data security leads directly to privacy protection when it comes to digital telecommunication, it seems that competing interests and trade-off effects exist between privacy and other claims and values leading towards profit maximisation. "Consumer privacy can be viewed in the context of any interaction, profit or non-profit, between marketer and consumer" (Goodwin 1991: 150); examples of this include surveillance, transactions, marketer-initiated surveys and the collection and evaluation of customers' data. When deciding whether to disclose personal information, consumers usually differentiate between sensitive and insensitive data. Sensitive data includes among others financial data, e.g. credit card information, as well as communication content such as emails or conversations. Demographic and certain kinds of lifestyle data are rather insensitive and therefore cause fewer privacy concerns (cf. Phelps et al. 2000: 33). With regard to digital telecommunication, a customer can see a threat in the misuse of her personal data by communication companies in the following areas: control over how her data is used, what length of time her data is stored and used, where the data is stored, how her data is transferred, who uses the data, and why the data is being used (cf. Bodorik/Jutla 2003: 470). Different technologies used in these areas, such as data mining, surveillance technologies, data collection and evaluation technologies, provide a potential threat to the privacy of users of digital telecommunication products. We have identified three main sources of conflicts resulting from trade-off effects that communication companies and, in many situations their customers as well, have to consider between privacy and other claims and values.

1. Privacy vs. usability and quality: Companies collect data in order to enhance their products' usability and quality and develop new devices and services in order to be able to compete with other providers. On the one hand, customers' informational privacy is often violated

when companies collect and evaluate sensitive data. On the other hand, customers profit from product improvement and would often rather accept violations of their privacy than not be able to use certain products.

2. Privacy vs. cost efficiency: By collecting relevant information, companies try to cut costs, for example in the fields of marketing, advertising, customer relation management or R&D. Often they do this in a way that threatens customers' privacy.
3. Privacy vs. revenue increase: The better a company knows its (potential) customers, the more easily it can increase its revenue by gaining new customers or by increasing after-sales service and customer loyalty. The information required is often sensitive, and the collection and evaluation processes provide a threat to informational privacy.

3. *Ethical Valuation of Privacy*

3.1 Concepts of Autonomy

In this chapter, we look at informational privacy from an ethical point of view, show how it is valuable and why there is a moral obligation to protect it. Most arguments for privacy in recent political debates follow the liberal tradition of connecting it with autonomy. In order to understand the complex relation between autonomy and privacy, we will first give a brief overview of the meaning of autonomy and then show how it gives privacy its instrumental value.

The use of the term autonomy in philosophical arguments "is generally understood to refer to the capacity to be one's own person, to live one's life according to reasons and motives that are taken as one's own and not the product of manipulative or distorting external forces" (Christman 2003: 1). Berlin's distinction between negative and positive freedom is useful to point out the specific characteristics of autonomy. While negative freedom merely describes the absence of constraints or barriers that could prevent an individual from doing or becoming something, positive freedom or autonomy includes much more. An individual is autonomous if she is self-governing and able to live her life according to her own wishes and independent decisions (cf. Berlin 1990: 131 et seq.). But which conditions have to be fulfilled in order to ensure that an individual is self-governing? Various, often conflicting answers to this question have been given in philosophical discourse since Enlightenment humanism, a movement in the 17th century focusing on reason rather than tradition, first put moral weight on the individual's capability to govern herself regardless of her social role or status. A basic distinction among those answers and interpretations can be made between moral autonomy and personal autonomy. Moral autonomy refers to an individual's capacity to apply the objective moral law to her and to act rationally and independently according to it. According to Kant who based his moral theory on the concept of autonomy, it is a capacity all rational agents, i.e. all humans, have. In the framework of Kant's moral philosophy, it is autonomy that enables humans to act morally (cf. Kant 1785: 74 et seq.). The focus of this paper, however, lies on personal autonomy, as it provides the ground for the instrumental justification of privacy discussed later. Personal autonomy focuses on moral obligations, but also defines autonomy as a quality that individuals can show in every aspect of their lives (cf. Christman 2003: 2). It goes back to Mill who emphasises the importance of personal autonomy as "one of the elements of well-being" (Mill 1859: 182), because it supports the development of an individual's character and enables her to pursue her preferences and her individual concept of the good life. Consequently, it leads to an overall maximisation of utility (cf. Mill 1859: 132 et seq.). As Berlin points out, Mill's central arguments are founded on "his passionate belief that men are made human by their capacity for choice" (Berlin 1991: 34) and their ability to decide autonomously. This also includes the ability for self-improvement through acting incorrectly and making mistakes. To be autonomous in the sense of personal autonomy means to be self-governing (cf. Buss 2013: 1). This stresses the value of self-integration: "We don't want to be alien to, or at war with, ourselves; and it seems that when our intentions are not under our own control, we suffer from self-alienation" (Buss 2013: 1). In order to govern herself, an individual must be guaranteed external factors such as a sphere of privacy in which she can act without interference and the satisfaction of basic needs. Additionally, she needs to fulfil competency conditions such as rational thought or self-control as well as authenticity conditions (cf. Christman 2003: 4). The latter ones are central to recent interpretations of autonomy, which have added psychological concepts to the debate in order to explain what makes a person self-governing. These interpretations emphasise the individual's ability for self-reflection and claim that "autonomy requires second-order identification with first-order desires" (Christman 2003: 4). A person in this sense is authentic and therefore able to act autonomously if she is able to identify with and reflect her wishes and desires. Her actions then derive from her essential character. Christman points out that the developing process of wishes and intentions is relevant for autonomous action and "focuses on the personal history of the agent as an element of her autonomy" (Christman 2003: 5). Rössler combines different elements of these concept and develops three necessary and sufficient conditions for autonomy. According to her, an individual acts autono¬mously if (1) she acts authentically, (2) her decisions have a plausible history that rules out manipulation and self-betrayal and (3) the person is capable of developing and stating individual intentions and goals (cf. Rössler 2001: 109 et seq.).

There is no commonly agreed-upon definition of personal autonomy. However, it has become clear that autonomy has some kind of basic value that is worth protecting. There is reason why most modern Western legal systems impose prison sentences and therefore a loss of autonomy on convicts as the most serious punishment: Autonomy has a central meaning in an individual's life and is usually not given up voluntarily.

3.2 Privacy as a Condition for Personal Autonomy

As Solove points out, "privacy is an issue of power; it affects how people behave, their choices, and their actions" (Solove 2002: 1143). But where exactly does its value lie? According to some philosophers, privacy has an intrinsic value that is found in "a form of respect that must be provided to all rational beings" (Solove 2002: 1145). However, for the purpose of this paper, it seems insufficient to assign intrinsic value to a concept that is as hard to grasp as the concept of privacy and that has no agreed upon definition. Therefore, it makes sense to understand privacy as instrumentally valuable and connected to an end. While there have been many different approaches to define that end,[3] it is an idea from the tradition of liberal philosophy that can most frequently be found in current debates about privacy in media and politics: the idea that the value of privacy lies in its connection with autonomy. It goes back to Mill who, in his essay On Liberty, explains why individuals need to have a sphere of privacy in order to act autonomously. In this sphere, the individual is able to make decisions without the interference of society or the public. Mill states that this sphere "is the appropriate region of human liberty". (Mill 1859: 142). Autonomy here provides the ends for and the normative element of privacy.

Kupfer provides a psychological approach to the connection between privacy and autonomy, which is especially relevant for this paper as studies about consumers' behaviour will be analysed later in order to understand how and to what degree privacy is valued by individuals (cf. Kupfer 1987: 80 et seq.). He agrees with Mill's basic idea of privacy as a necessary condition for autonomy

3 For an overview of different approaches to privacy and criticism towards it, we recommend: (Rössler 2001: 20 et seq.).

and argues that “autonomy requires a conception of self for which privacy is indispensable” (Kupfer 1987: 81). Even though autonomy seems to depend on a number of factors such as intelligence or the satisfaction of basic needs, privacy seems to be a central condition for autonomy. According to Kupfer, this is because autonomy is connected to the notion of the individual’s autonomous self-concept, which means that she conceives of herself as a responsible, self-governing agent that acts autonomously. So how do we develop this autonomous self-concept? First of all, we need to be sure of the social boundaries of the self. We must have control over our movements, over who interacts with us, who is involved in intimate relationships with us and who gets information about us. Privacy provides individuals with control over their social boundaries and therefore contributes to the development of their autonomous self-concept. Growing up, children learn to control information about themselves, for example by keeping secrets, finding places to be alone or even by lying, and therefore develop an understanding of their autonomous self. In contrast, if privacy is systematically taken from individuals, for example in institutions such as prisons or nursing homes, their autonomous self-concept is violated and their autonomy is diminished. This can lead to unnatural and destructive behaviour such as enuresis. But privacy is not only necessary to develop an autonomous self-concept in the first place; it also enables self-examination, self-reflection and self-criticism and therefore a sort of control over the self-concept. Privacy protects individuals from “others both as intrusion and distraction” (Kupfer 1987: 84) and gives them a sphere where they can try out their thinking and acting, make mistakes and take risks without facing public humiliation and judgment through others. Privacy, therefore, also enables an individual to think of herself as trustworthy: “By providing opportunities for failure or wrong-doing, society indicates confidence in the individual’s exercise of autonomy” (Kupfer 1987: 84). In contrast, monitoring, observing and data collection question the trustworthiness of individuals and therefore violate their self-worth (cf. Kupfer 1987: 85).

But to what degree does violating a person’s informational privacy mean explicitly violating their autonomy? Rössler argues that privacy violations such as data collection, surveillance and observation change a person’s behaviour in a way that makes her less autonomous, because her impression of being observed constantly has an impact on how she acts (cf. Rössler 2001: 206 et seq.). Therefore, violating a person’s informational privacy prevents her from fulfilling Rössler’s second condition for autonomy, which states that a person’s decision must have a genesis that rules out manipulation (cf. Rössler 2001: 125, 153). Similar to Mill’s idea, informational privacy in this sense is a necessary condition for autonomy and is therefore valuable. It is worth protecting because the information others obtain about a person can violate her ability to pursue her individual conception of a good life and can prevent her from making autonomous decisions. One could criticise Rössler's argument by saying that not every case of violating informational privacy directly violates autonomy in a way that is relevant. Collecting and evaluating people's private emails, for example, is usually only used by the email provider to match advertising or certain features of the email service provided exactly to a person's individual needs and tastes which does not necessarily violate her autonomy. But even though it may be impossible to draw the line between those violations of informational privacy that violate autonomy in a relevant way and those that only have a tolerable impact on autonomy, studies as the one presented in chapter one show that many people using digital telecommunication products feel seriously violated in their privacy. Individuals are often not protected from access by others in situations that are normatively private, and they frequently lose control over their private information in the sense of the RALC theory as they are not able to manage their informational privacy. The constant and systematic violation of informational privacy that individuals face in today's society eventually leads to modified acting and thinking and this to a certain extent deprives individuals of their personal autonomy. Data collecting, surveillance and monitoring activities of communication companies have reached a dimension that leads to a violation of individuals' private spheres of action as described by Mill. As Cohen points out, informational privacy should be valued and protected, because it "is an essential building block for the kind of individuality, and the kind of society, that we say we value" (Cohen 2000: 1435).

3.3 Normative Implications for the Digital Telecommunication Sector

From an ethical perspective, companies in the telecommunication sector are morally obliged to protect their customers' privacy in order not to violate their autonomy. The RALC framework offers useful suggestions on how to implement this. Every telecommunication company should protect customers' informational privacy in normatively private situations (restricted access) as well as enable them to manage their privacy (limited control). When it comes to deciding which elements of informational privacy are relevant for their customers' autonomy, it makes sense to use the choice, consent and correction process as suggested by the RALC theory and let customers themselves decide what kind of information they are willing to share in which situation and at what time. This rules out secretly selling information about customers, collecting, saving or evaluating data without customer approval or secretly tracking customers' behaviour.

Many companies argue that their customers explicitly agree to their activities by signing the terms and conditions and that their actions of violating informational privacy are therefore legally and ethically justified. This is, however, questionable, because customers are often not aware of the real content of the terms and conditions due to transparency issues, lack of background knowledge, or lack of time. In addition, they often lack relevant alternatives: Either they agree to the terms and conditions, or they cannot use certain channels of communication at all. How can companies be sure that they are acting in an ethically correct manner when it comes to dealing with customers' informational privacy? We suggest two strategies companies can use in order to ensure their customers' privacy.

For the first suggestion, we transfer the concept of informed consent, which originates from medical ethics, to the discussion about privacy. In medical ethics, informed consent describes a process of doctor-patient interaction in which the patient gives her permission for a certain healthcare intervention such as a specific procedure. During this process, the patient needs to be informed thoroughly and must gain a clear understanding of the circumstances, alternatives and consequences of her decision. She must also have the capacity to decide adequately and know about all relevant facts at the time she gives her consent (cf. Faden 1986: 36 et seq.). The result is an individual who is an autonomous decision maker. Communication companies should aim for the same kind of process when they ask for their customers' consent to use their private information. This means that the customer must have a thorough knowledge of how her informational privacy is influenced by the company's activities, of the alternatives and consequences of her consent and of all relevant facts. She should then be able to choose in which situations she gives her informed consent to disclose personal information. This fulfils two criteria for informational privacy suggested by the RALC framework: choice and consent. It is the company's responsibility to provide her with this knowledge and to make sure that she is capable of making autonomous choices. This might not be the case if the customer is underage or if there are simply no relevant alternatives she might choose from, because the customer has to give her consent in order to use a specific form of communication at all. In this case, the often-used justification argument that customers agree to the terms and conditions would not be a sufficient indicator for consent.

The second approach for companies that want to act ethically correct when it comes to their customers' privacy focuses on the ownership of customers' personal data. "Opponents of strengthened privacy protection think of collections of personally-identified data as 'their' property; as evidence, they point to their investment in compiling the databases and developing algorithms to 'mine' them for various purposes" (Cohen 2000: 1378). A company that respects its customers' autonomy and therefore aims to secure their informational privacy should, however, grant their customers the right of ownership of their personal information. As it is her property, a customer should be able to know how her data is used at all times and to have access to it and object to its use. As the RALC theory suggests, a company should give customers control over their data by allowing them to correct what kind of information they disclose and delete or remove data if they wish to. Respecting customers' ownership of their personal data means securing their informational privacy and therefore respecting their autonomy.

4. Economic Justification of Privacy

4.1 Resolving the Sources of Conflict with the Privacy Calculus

In this chapter, we look at informational privacy from an economic point of view and show that the three sources of conflict areas can be solved using so-called privacy calculus. The idea of using privacy as a UVP will be introduced. In order to show how privacy can be used to increase quality and revenues as well as cut costs, we analyse the relevant target group and divide it into subgroups according to customers' preferences regarding privacy. From this, we derive strategic implications for companies in the digital telecommunication sector and show how privacy can be used as a competitive advantage in practice. As shown in section 2.3, companies in the digital telecommunication sector and their customers face three sources of conflict that cause a trade-off between profit maximisation and privacy: (1) privacy vs. usability and quality, (2) privacy vs. cost reduction, and (3) privacy vs. increase of revenue. The idea that companies need to make use of customers' personal data to remain competitive seems to be common knowledge in the digital telecommunication industry and is rarely questioned. Consequently, we now take a closer look at the specific factors that cause companies to violate their (potential) customers' informational privacy by collecting data in order to understand what kind of value this behaviour creates.

1. The customer makes her purchase decision depending on the usefulness of the product and thus determines whether or not the company's product is sold. A company thus needs to find out what suits its (potential) customers' needs best. A company that provides communication

services can improve its service by tracking customers' behaviour. By analysing how and how frequently certain features of the product are used, a company can improve its products constantly. A messenger service could introduce a group chat function, for example. The company could decide to violate their customers' privacy and analyse their customers' data to find out whether or not it has attracted new target groups by the introduction of this feature. If so, the company might concentrate on further improvements to this group chat function and thereby also improve its product. In this case, the company would have violated its customers' privacy by analysing the data, but as a consequence could have identified new customers who would buy the messenger service because of its new feature. Data like time, location and content of a communication process are often useful for specific analysis and easy to generate since communication devices like smartphones can easily transfer such data to their providers. For example, a company could decide to implement a location-sending feature after analysing the content of communication processes and finding out that information regarding whereabouts is sent frequently. The users' personal information is often also used directly to increase usability. For example, many apps track the user's location in order to suggest other users nearby with whom the person can communicate with. An app, which uses private information in order to increase quality, is the dating app "tinder" (Der Westen 2014: 1). It is designed to connect users with potential partners. For that purpose, it uses location data to find possible partners nearby. It also evaluates users' Facebook profiles in order to find similar interests and shared Facebook "friends". This aims to increase usability by providing better matches and therefore enhances the quality of the service the app provides. The same holds true for the following example: a newspaper app might remember the articles a user has read to conveniently recommend similar ones to her. Saving the users' preferences and creating e.g. political attitude profiles, which could also be stored, may be an issue for a potential future employer.

2. The costs of a company that can be lowered by strategically using customers' personal information include, among others, customer acquisition costs, R&D costs (as described in [1], product improvement processes are more efficient if users' data is evaluated), as well as customer relation management. Customers are acquired most efficiently if the advertising of a company focuses on an adequate target group and therefore increases the chances of a successful transaction. The analysis of a target group becomes more efficient when the personal information about the customer can be evaluated and advertising can be personalised. The same is true for activities regarding customer relation management. It is conceivable that e.g.

WhatsApp identifies that the need to communicate is particularly prevalent in young people by analysing their customers' profiles. As a result, the company would invest in advertising space frequently visited by young people. The location-sending feature mentioned in the last paragraph could also save R&D costs as by just analysing the data of their customers, the company could find out the need to state locations instead of having to use expensive market research. The same is true for sending contact information by one click of a button. If by analysing text content a messenger company can recognize the frequent sending of contact information, it can implement a contact-sending feature and therefore reduce R&D costs.

3. Better-tailored advertising not only cuts the costs because irrelevant groups are not addressed, but it also increases effectiveness because targeted advertisement is matched to the interests of a potential customer and therefore increases the conversion from a potential buyer into an actual customer. Communication companies like email providers often use their customers' data not only to sell more of their own products, but also to provide advertising services to external actors like retailers. They produce valuable detailed customer profiles based on the evaluation of customers' communication processes such as messages. The e-mails of Googlemail users are screened for their content, for example. If one is eager to tell all friends about the upcoming holidays, Googlemail might offer the advertising space on the email website to vacation trip providers. The more accurately Google determines the target group for the vacation provider through analysing the data of its users, the higher the conversation rates that the trip provider can expect will be. The willingness to pay for the advertising space is greater if more new customers are expected. Therefore, Google can demand higher prices and thereby increase profits.

All in all, information about (potential) customers, their preferences, needs and behaviour can mean a crucial competitive advantage, which provides an incentive for companies to violate their customers' informational privacy. On the other hand, privacy, just like usability and low prices, is also valued by customers. Many studies, such as the one by Phelps, Nowak and Ferrell, found that many consumers are concerned about the ways companies use personal information about them (cf. Phelps et al.: 29). We have, however, seen that for usability and customer acquisition purposes, companies need to collect personal information.

Although most consumers are concerned about the ways companies use personal information, (cf. Phelps et al. 2000: 29) consumers are willing to disclose certain personal information if they get “something valuable in return” (Kobsa 2001: 4). Thus, based on the findings from Jutla and Bodorik, we see that privacy is much more applicable as a value model than as a selling proposition (cf. Jutla/Bodorik 2003: 469). Value in this sense is not limited to monetary profits, but also takes value-adding factors such as reputation into account (cf. Barnes et al 2009: 28). “Strategy is based on a differentiated customer value proposition. Satisfying customers is the source of sustainable value creation” (Kaplan 2004: 10). By measuring economic success in terms of value instead of monetary profits, we can show that privacy has economic as well as ethical value.

Losing control over the use of personal information is one of the greatest consumer fears (cf. Phelps et al: 33). Research has even highlighted that customers are not only concerned about the storage of their personal information but already act proactively (cf. Kobsa 2001: 4). In western countries like Germany or Great Britain, more than a third of the customers have refrained from buying a product or bought less due to privacy concerns (cf. Kobsa 2001: 4). Privacy intrusion leads to risks such as customer loss through lack of reputation and trust, as well as the failure to use the value of privacy economically as a UVP and a strategic competitive advantage. So how can this assumed conflict between privacy and value maximisation be resolved from an economic perspective?

The resolution of all of the conflict areas depends on one crucial factor: the customer. If more customers decide to buy a product or service for a given price, sales figures can be increased. If a greater percentage of customers is persuaded by well-tailored advertising, customer acquisition costs can be reduced. As a consequence, the key question for companies is: How do customers weigh the risks of information disclosure against the benefits they can get from a transaction?

The first researchers who came up with an idea of how to evaluate the benefits of information disclosure and privacy concerns were Laufer and Wolfe in 1977. They assumed that

> “individuals should be willing to disclose personal information in exchange for some economic or social benefit subject to an assessment that their personal information will subsequently be used fairly and they will not suffer negative consequences in the future” and called the evaluative process the privacy calculus.” (Laufer/Wolfe 1977: 35)

Therefore, people are going to reveal personal information if they believe they will profit from the benefits of a relationship with a company. The benefits of the revelation are weighed against the risks of doing so. Individuals will exchange information as long as they feel that the benefits outweigh the risks of disclosure. The calculus hence creates an incentive for the company to mitigate privacy violations and increase privacy protection, because it takes the value of privacy into the equation.

4.2 Privacy as a Unique Value Proposition

The protection of privacy does not necessarily have to cause profit reduction. Quite the contrary is true once companies realise that privacy protection is more than an instrument to minimise the risk of scandals but in fact a highly underestimated market niche. As a result, the three areas of conflict we originally identified in chapter 2.3 do not necessarily cause trade-off effects, but, as matter of fact, synergy effects if they are approached with privacy calculus in mind. Protecting customers' privacy can contribute to an increase in the quality of a digital telecommunication service by adding privacy as a value to the product, as well as cutting costs and increasing revenues. Using privacy as a UVP can therefore lead to the retention of existing customers, the acquisition of new customers who are not yet using similar products, and the enticement of customers from the competitors. These three processes contribute to transforming the originally identified areas of conflict into areas of synergy and making use of the privacy market niche.

We found that the UVP of privacy is especially influenced through (1) trust and (2) security. Increased trust and security in the company, which administers the personal information, lead to higher satisfaction with the company than if the consumer does not trust the company (cf. Kobsa/Knijnenburg: 15). Higher satisfaction leads to a higher level of reputation capital and thereby attracts a higher number of customers or retains them. Thus, because customers value trust and security, it is important for the company to enhance both of them.

1. Whenever a company convinces its customers that they can trust the company and its use of their personal information, the company increases its reputation capital. Based on the findings of Culnan and Bies, treating the consumer's personal information in a consumer transaction fairly is "essential to building trust in a customer relationship" (Bies/Culnan 2003: 327). To sustain trust, the organisation's practices as perceived by the consumer must be consistent with the policies it discloses. If the company does not act in accordance with its privacy guidelines, trust is lost and the chance of disclosing personal information in the future decreases. (Bies/Culnan 2003: 327 et seq.) It may as well raise "concerns about the integrity of

the organization's information practices" (Bies/Culnan 2003: 327 et seq.). A significant factor in showing that privacy is able to become a UVP is to reveal the customer's willingness to pay for it. The study of Savage and Waldman 2013 indicates that customers are ready to pay for privacy-friendly communication technology which they can trust. The latest study of Savage and Waldman was conducted in the US and concentrates on the app market which is part of the communication sector. Their results suggest that a representative customer is willing to make a one-time payment for an app she can trust. Such trust components are deleting of browser history ($2.28), the concealment of the list of contacts ($4.05), of location ($1.19), of the phone's identification number ($1.75) and concealing text message contents ($3.58). There is also a willingness to pay for the removal of advertising ($2.12) (cf. Savage/Waldmann 2013: 1). The market potential is therefore enormous, and customers can be attracted by using privacy as a UVP if especially the different concealment options are made available. Furthermore, through cumulative positive experiences of the information practices of a company, trust is enhanced over time (cf. Bies/Culnan: 327). Thus, whenever a company enjoys a high level of trust and reputation, it becomes more costly for the customer to switch. She has to put some effort to change firms to get a service or product which she can trust in the same way as the original company. As a result, it is much more likely that the benefits of the trusted company outweigh the costs for a company change

2. Customers will also change the company or decide to buy a privacy-friendlier product if the perceived risks of using privacy violating products become too high. The risks can be lowered and therefore customers attracted if the perceived security in the privacy-friendly company is higher. The perceived security is "the subjective probability with which consumers believe that their personal information will not be viewed, stored, or manipulated during transit or storage by inappropriate parties, in a manner consistent with their confident expectations" (Chevlappa/Pavlou 2002: 359). Chevlap¬pa and Pavlou empirically verified the highly positive relation between this perceived security and control mechanisms. The better the control mechanisms, the higher the security the customer perceives. Among others, they list encryption, authentication (e.g. through digital certificates/third parties) and protection (e.g. through presence of privacy policy statements) as positively affecting consumers' perceived security (cf. Chevlappa/Pavlou 2002: 358, 364). We will discover later how exactly a company can implement privacy as a UVP.

4.3 Segmentation of Consumers Based on Their Privacy Attitudes

Security and trust are the main variables of the unique privacy value. However, not all people value their informational privacy to the same extent. Throughout the population, one can differentiate among three groups regarding their privacy valuation according to Westin: (1) privacy fundamentalists, (2) privacy pragmatists and (3) privacy unconcerned. Westin paved the way for modern privacy research in the late seventies by his aforementioned typology of privacy attitudes which he edited in 2001 (cf. Westin 2001) and 2003 (cf. Westin 2003: 445). In his more recent studies, he recognised a shift in privacy attitudes moving from a minor focus topic for just a few people to an "issue of high intensity" (Hann et al 2002: 2). The download numbers of one of our practical examples, "Zenmate", exploded when privacy scandals became an issue in their respective target markets. Thus, we expect that the number of privacy fundamentalists has increased since 2003, and the number of privacy unconcerned has decreased since privacy violations have caused widely recognised scandals and discussions in media and politics since then.

1. The privacy fundamentalists are deeply concerned about privacy. Therefore, they are likely to reject the social or economic benefit a company offers in exchange for information disclosure. Fundamentalists also have a rather strong tendency to demand legal regulation and control of the business' use of personal information. In 2003, 25% of the US population were found to be privacy fundamentalists.
2. Privacy pragmatists made up the majority of the US population (55%) in 2003. Before making the decision whether to disclose information or not, they use a sophisticated privacy calculus process. First of all, they want to know the social or economic benefit they will get from information disclosure and how their personal information is collected and used. Further, they are interested in the risks they are exposed to if information is gathered. Thirdly, privacy pragmatists look to see whether and which safety measures a company adopts to mitigate privacy risks. Finally, they ask themselves whether they can trust the company. If they want a benefit but are concerned about risks and do not trust the company, they too demand an appropriate legal framework to hedge against privacy risks.
3. The privacy unconcerned hold the opposing position to the privacy fundamentalists and do not care much about personal information dissemination or privacy. In 2003, approximately a fifth of the population were assigned to this group (cf. Westin 2003: 445). As Westin characterises

them, "(…) for 5 cents off, they will give you any information you want about their family, their lifestyle, their travel plans, and so forth" (Westin 2001: 23).

4.4 Strategic Implications for the Digital Telecommunication Sector

As we have identified different types of privacy attitudes, we also recommend strategically differentiated approaches to restoring or implementing trust and security as a competitive advantage by using privacy as a UVP. First and foremost, our proposals are aimed at privacy pragmatists who form the majority of the population. Yet we also think that the concerns of privacy fundamentalists can be calmed although they might not be fully convinced of secure informational privacy by the strategies we suggest. The strategic implications for this group rather aim at the future when more positive experiences with privacy-friendly companies will be gained. As privacy unconcerned do not care about the dissemination of information, the privacy mechanisms we propose do not have to be applied to this group of the population from an economic point of view.

We suggest four main strategies for implementing privacy as a UVP that contribute to fulfilling the conditions for informational privacy as suggested by the RALC theory: (1) encryption, (2) authentication, (3) protection and (4) privacy-friendly data collection.

1. The first essential pillar of the concept is encryption. Encryption is defined as "the process of translating information from its original form into an encoded, incomprehensible form" (Chevlappa/Pavlou 2002: 361). Encryption techniques should always aim for end-to-end encryption. It is currently considered a very popular and safe method to transfer personal information from the sender to the recipient. Once a message is sent, it can only be decoded by the sender or the recipient's terminal equipment. It thereby becomes very difficult to skim information during the transfer. End-to-end encryption can be realised, for example, through "web servers and browsers that are built with a technology referred to as secure socket layer (SSL)" (Chevlappa/Pavlou 2002: 361). While surfing, it can be noticed through an added 's' to the traditional 'http' protocol in the address of a website. Messaging apps, for example, should only use the safe protocol to transfer data in order to minimise privacy risk caused by spying through external actors.
2. The second strategy is authentication. Authentication is defined as the process through which a company "can be established through a trusted third party" (Chevlappa/Pavlou 2002: 361)

which guarantees the correct identity of the company (Chevlappa/Pavlou 2002: 361). This could most efficiently be realized through a privacy seal or digital certificates (cf. Chevlappa/ Pavlou 2002: 361). A privacy seal guarantees that firms reveal their privacy approach and act according to it (Bies/ Culnan 2003: 333) and makes the UVP privacy visible to the customer. According to a study of BITKOM, 55% of Internet users reported a wish for a government label for data security (cf. BITKOM: 23).

3. Thirdly, fair information practices should be implemented. They protect informational privacy as suggested by the RALC theory. We found notice, choice and access to be fair informational practices of first priority. Notice means that individuals should know whether and how information about them is collected as well as how it is going to be used. Choice can be applied when customers object to information use in cases when the information was collected for one consented purpose but is used for another. Access includes the possibility for customers to see their information and correct mistakes (cf. Federal Trade Commission 2000: 3).
4. While our focus lies on the value of privacy, we also acknowledge the need for companies for a minimum of personal information collection due to the trade-offs mentioned in 2.3 and 4.1. In order to increase trust without having to work without essential customer information, we suggest the process of privacy-friendly data collection. A company seeking to implement a privacy-friendly data collection has to consider a number of points. Privacy-friendly data is insensitive data as explained in 2.3. In general, sensitive data should be treated more carefully than insensitive data, i.e. asking for sensitive data should be avoided. In a poll conducted by Kobsa 2001, 73% of the customers found it helpful and convenient if, for example, a website remembered basic personal information about them (cf. Kobsa 2001: 3). Nevertheless, the customer also has to have the feeling that the requested information is needed for a transaction and not collected arbitrarily (cf. Li et al 2010: 25). If the address of a customer is requested for product delivery, the customer is probably willing to disclose it. However, in other situations, asking for address data might fuel distrust.

Each of the recommended strategies goes one step further to a privacy-friendly company. The provided strategies complement each other and promote the conditions of the RALC theory. To encrypt, authenticate and protect her information could turn out to be very time-consuming for the customer if, for example, she has to check the privacy guidelines of every website before beginning to use it. A company can take this burden on itself and use so-called privacy-enhancing technologies as, for example, proposed by Ackerman and Cronor (1999). They help to implement the strategies we proposed. The first strategy, encryption, should be realised through a secure connection while surfing the Internet or texting. End-to-end encryption is the most promising approach. Privacy-enhancing technology could authenticate a website as being on a warning list on well-known associations as e.g. BBBOnline or on the contrary confirm a privacy-friendly site through the recognition of a privacy seal with which privacy-friendly companies could be labelled by an independent third party. Most time would be consumed if the consumer had to read through all the privacy guidelines of every website. With technology that can check whether or not the privacy guidelines of a company match the privacy preferences of the customer, this would not have to be done. Once privacy settings are set, the privacy-enhancing technology either verifies whether the consumer's setting match or do not match a website or app. Thus, the decision whether to continue the interaction with the website/app or not is left to the consumer. With platforms, such as P3P, this is already possible. P3P is a standard sponsored by the World Wide Web Consortium (W3C). Web sites encode their privacy policies in a machine-readable format, allowing web browsers and other P3P agents to find them automatically.

Regardless of whether companies choose to implement privacy as a UVP through privacy-enhancing technologies, guidelines authenticated through certifications or seals, or other implementation strategies, the need and demand for privacy protection is increasing, and so are the opportunities to use privacy as a UVP.

5. Practical Examples of Privacy as a UVP

5.1 Threema as an Example of Privacy Protection as a Competitive Advantage

In the following section, two case studies will support our hypothesis that the value of privacy can be translated into economic figures by using it as a UVP. The first case study analyses Threema, a secure mobile messaging service, and the second one is about ZenMate, a company providing privacy-enhancing technology. Both companies focus on business-to-customer relations and show a strong focus on the issue of privacy protection in the general sense. We chose Threema as an example as it is the only messenger service rated 'noncritical' by Stiftung Warentest, a German consumer protection organisation (cf. Haak 2014: 1). The exclusive criterion for the ranking was data security.

Threema's main competitor WhatsApp dominates the market with a German market share of 84% in 2014 (cf. Horn 2014: 1). Both companies offer a mobile messaging app which can be installed on a customer's smartphone through download. Both allow real time communication with the user's personal network via online chatting. In contrary to mere SMS delivery, both providers offer the sending of messages at no charge. Threema provides end-to-end SSL encryption (Threema Homepage 2014), which ensures that only the sender and the recipient of the message can read it, and therefore provides strong protection for user's informational privacy. WhatsApp does not offer any service in this area. Installing Threema costs €1.79 (for Apple devices) or €1.60 for Android. WhatsApp is free for the first year and then requests a yearly charge of €0.89.

For a long time, Threema's download figures were very low compared to WhatsApp. However, when Facebook took over WhatsApp on 20 February 2014, Threema's users doubled in just 24 hours. Since the takeover in February 2014 till early May of that year, an additional 2.6 million users joined Threema – an increase of 700% in four months (cf. Weigert 2014: 1). Eighty per cent of Threema's users are German residents. Nevertheless, Threema is not a German phenomenon. In many other European countries as well as the United States, Threema ranked among the top 5 paid apps after the WhatsApp takeover. The expansion of Threema after the takeover of WhatsApp could be caused by three factors: (1) usability, (2) price, and (3) privacy concerns.

1. Threema entails all functions WhatApp has. It is possible to send text messages, emoticons, voicemails, and locations or interact in group discussions. The main difference is that Threema, in contrast to WhatsApp, does not lay claims to the copyright of the pictures, texts and videos of its users. It also does not analyse the text messages of its customers. In particular, Threema increases protection against data skimming because it has integrated end-to-end encryption. Since there is no functional advantage in using Threema rather than WhatsApp, we reject usability as a factor for Threema's expansion.
2. The price could also be a distinguishing criterion. Nevertheless, we think that in absolute terms, the difference between the two apps is negligible. After the third year of usage, Threema, with its one-time payment, becomes even cheaper than the WhatsApp subscription.
3. As usability and price levels are so similar, the reason for the rapid increase of Threema users must be a different one: Threema uses privacy as a UVP and therefore creates a competitive

advantage for itself. Customers who used WhatsApp before its takeover might have transferred the privacy concerns they had to WhatsApp since Facebook's privacy reputation is very poor. We have seen that Threema does not stand out from its competitors for reasons of functionality. Instead, they advertise their product using the slogan 'Seriously secure mobile messaging'. The slogan clearly focuses on security – one of the two proposed values created by privacy. It is the offered security through privacy protection which gives the product its uniqueness. Threema fulfils two of our suggested strategies: protection through fair information practices and encryption. Through the SSL encryption, data is transmitted safely. End-to-end encryption ensures that only the sender and recipient of the message can read its content. Fair information practices are described in the privacy guidelines of Threema. The customer can read whether data is collected, for how long and for which purposes it is used. The company stores information only for the time which is required to transfer texts or images. Afterwards, the data is deleted. The user is free to link her Threema ID with an email address or telephone numbers of his address list. If she made the choice to link the contacts, she can always undo and thereby correct her actions. Unauthorised access to third parties is also prohibited. Therefore, both restricted access and limited control conditions as proposed by the RALC definition are fulfilled (cf. Threema Homepage 2014).

5.2 ZenMate as an Example for Privacy-Enhancing Technology

ZenMate offers privacy-enhancing technology which protects users' informational privacy by restricting external actors' access to users' data. At the same time, it enables users to manage their privacy by giving them the opportunity to switch ZenMate on and off according to their preferences when to disclose information. It is a browser add-on, which is currently downloadable for free and offers encrypted, anonymised and thereby secure data traffic in the Internet. Of the strategies proposed in chapter four, ZenMate fulfils encryption and protection. No matter which network is used, ZenMate manages to encrypt and secure every connection through a "cloud-network of highly secured servers" (ZenMate). By doing so, it hides the personal IP address of the electronic device used and replaces it by a generic ZenMate IP. Not even the geographical location is localisable. The person surfing with ZenMate turned on is now "untraceable, unidentifiable and secure" (ZenMate Homepage 2014). In contrast to other clients, ZenMate's usability is very high, and users do not need much technical education for its implementation. Simon Specka, the founder of ZenMate, describes the vision of his company as "to provide security and privacy through encryption in a simple easy way that anyone can implement, regardless if you are a tech guru or a 92 year old granny." (ZenMate Blog 1). Four million ZenMate users show that there is an increasing demand for the protection of informational privacy as provided by ZenMate's privacy-enhancing technology. Every minute, thirty new signups are registered. ZenMate got all of their clients without one single euro of marketing budget (cf. ZenMate internal documents) and yet acts in nearly every country. The download numbers in specific situations indicate how important the protection of privacy through anonymisation really is: whenever the freedom of speech is oppressed in a country and governments try to restrict access to, for example, social networks, ZenMate's download numbers increase significantly in that country. Although the following examples refer to governments, we think the company case is similar: if governments restrict freedom of speech and hence violate informational privacy, the citizens' demand for privacy-enhancing technology increases. Likewise, if companies impede undisturbed communication and violate informational privacy, customers will switch to a privacy-friendlier communication provider.

During the local government elections in Turkey, access to Twitter was blocked. As a result, ZenMates' download rates increased by 2300%. Out of the 10 million Turkish Twitter users, 180,000 installed ZenMate to continue to use that social network anonymously. Similar processes could be seen when the Venezuelan government censored social networks during anti-government protests (cf. ZenMate Blog 2). In the U.S., ZenMate is also successful. Mainly schools, universities and employees at the workplace want to protect their privacy. Public awareness grew especially with the NSA/Snowden affair (cf. ZenMate internal documents).

Every person using privacy enhancing technology shows that privacy is increasingly becoming "an issue of high intensity" (Hann et al 2002: 2) and according to Simon Specka, the founder of ZenMate, this proves that ZenMate 'got it right' (cf. ZenMate internal documents). This becomes even more significant if we consider the rising demand for privacy after every 'privacy crisis' like the NSA affair. Although ZenMate is currently available for free, it declared its intention to provide a paid version in the future as well. In the emerging freemium model (combination of free and premium), implementing privacy as a UVP will also create monetary value. Other companies that want to offer privacy protection for their customers should also be interested in ZenMate's paid version being released in the future. All in all, the constantly increasing user numbers of ZenMate indicate a demand for privacy protection.

6. Conclusion

In this paper, we have shown what is meant by the term “informational privacy” and why it is valuable from an ethical perspective. Privacy protects autonomy that has a basic value that people do not want to give up. Data mining and monitoring make a person less autonomous because the feeling of surveillance alters her behaviour. Therefore, privacy is valuable, especially in the context of digital telecommunication. At first sight, it appears difficult for companies to protect their customers’ privacy, because it seems to restrict their range of action and seemingly causes economic damage. We have shown that this is not the case. On the contrary: there is an increasing demand for privacy, which is why privacy can even constitute a competitive advantage when used strategically as a UVP that creates trust and enhances perceived security. If companies are not ready to comply with the wishes of their customers, they might face customer migration to more privacy-friendly companies such as Threema in the communication sector or ZenMate as a protector of Internet privacy. During our investigations, we came across several studies about the demand for privacy in very specific situations or industries. Further research in the digital telecommunication sector could shed light on the specific willingness to pay for privacy and the details of informational privacy that are especially valued by customers. Our example, Threema, indicates that at least for certain communication services, customers already pay a premium. We await ZenMate’s extended freemium model and other privacy-friendly companies to show the potential privacy has – because privacy matters not only from an ethical perspective, but also from a strategic one.

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Market Failure Approach

CORPORATE RESPONSIBILITY IN THE TELECOM SECTOR

Stakeholders at Stake

A Market Failures Approach for the Telecommuncations Industry

Jurij Pfeiffer and Raphael Zumsteg

Keywords

CSR, Market Failure Model, Pareto Criterion, Justifiability-to-Each Criterion

In business ethics, corporate social responsibility implicitly goes hand in hand with stakeholder theory. The normative stakeholder approach states that an organisation has a set of moral obligations not only towards its shareholders but towards stakeholder groups as well. Apart from the theory's omnipresence and its assumed simplicity, companies struggle to establish or to comply with these moral obligations. In this paper, we question if the stakeholder framework is most suitable to model an organisation's social responsibility. As a promising alternative, we introduce the market failures approach by Joseph Heath. It states that an organisation's moral obligation is to maximise profit under the condition that it refrains from taking advantage of market failures. We choose the telecommunications industry as a sample to apply the market failure framework. Our application shows that in a non-ideal market, the market failures framework is difficult to apply due to its demanding Pareto criterion. We propose a modified criterion – 'justifiability to each'. It aims to render the market failures approach useful in non-ideal markets and open it up for managerial recognition in putting an organisation's social responsibility into practice.

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1. *Introduction*

> "The thicker a company's CSR-Report the more skeletons you find in their cupboard" (Bator 2013).

The first emergence of Corporate Social Responsibility (CSR) may be ascribed to J. D. Rockefeller and A. Carnegie's philanthropic investments (cf. Gond/Moon 2012: 3) in the middle of the 19th century. The birth of the 'modern period' of CSR literature can be dated about a century later and is often marked with the publication of R. Bowen's Social Responsibilities of the Businessman in 1953 (cf. Carroll 2008; Bowen 1953). A decade later, Milton Friedman presented his vision of a shareholder theory to describe the responsibilities of an organisation, to which R. Edward Freeman responded another two decades later with his stakeholder approach. Freeman's idea of a more ambitious responsibility of organisations was rapidly growing in popularity so that already in the 1990s, CSR started to go hand in hand with his stakeholder theory. The interconnectedness of the stakeholder approach with CSR has gained ever more acceptance, inducing that nowadays, scholars even conclude that the first of "three fundamental lines of CSR enquiry in the academic literature" is that CSR is "stakeholder-driven" (Basu/Palazzo 2008: 125). In this paper, we want to offer an alternative to the orthodoxy of the stakeholder approach: Joseph Heath's market failures approach with the amended justifiability-to-each criterion.

In the paper at hand, we refer to diverse accounts of business ethics and moral theories. These accounts seem to be confusing in the first place unless they are linked by the use of common terminology. All approaches we are using in this article conceive of business ethics as a species of professional ethics. Professional ethics has a longstanding tradition that can be dated back to the ancient Greek philosopher Hippocrates and the eponymous oath to which today's physicians still adhere (Veatch 1981). Similar to questions of medical ethics that arise from the professional role of physicians, business ethics deals with the questions that arise from the professional role as managers (cf. Heath 2004). Therefore, in this paper, management is dealt with as a profession or, "a common denominator across several sub-professions" (Brinkmann 2002: 160). The assumption is that being a manager (or having any other professional role) imposes its own specific set of obligations upon a person which are not necessarily part of general morality. This means that being the corporate executive of an organisation places special obligations which arise out of his professional role upon the manager. This particular set of obligations is imposed upon the manager not qua individual, but qua manager (cf. Heath 2006: 534). This account does not rule out that these obligations are derived or even sanctioned by morality in general, but it has the advantage that professional and individual obligations are not intermingled. When we speak about an organisation's social responsibilities in this paper, we always refer to the special obligations of the manager acting as an official representative of this organisation. As Howard R. Bowen and Milton Friedman suggested, we assume that the responsible individuals in an organisation are businessmen, i.e. individual proprietors or corporate executives (1953 ;1970). An organisation is "an artificial person and in this sense may have artificial responsibilities, but 'organisations' as a whole cannot be said to have responsibilities" (Friedman 1970:123). Only people can have responsibilities, both as individuals and as professionals (cf. Sandbu 2011: 74).[1]

2. *What is the Role of Organisations in Society?*

2.1 The Two Predominant Approaches

The following section prepares the stage for our main argument. We provide a short and comprehensive overview of the two main theories that are prominent in the field of business ethics. In the first part of this section, we take a look at the heavily criticised shareholder view by Milton Friedman. We will discuss why the premise "the social responsibility of a firm is to increase its profits" (Friedman 1970: 122) is indeed problematic but often criticised for the wrong reason. In the second part of the section, we will immerse ourselves in the rather more prominent stakeholder views, which are part of the curriculum in business schools all over the world. The widespread perception is that for organisations to act in a genuinely ethical manner, they have to extend their responsibilities to groups other than shareholders. Instead of discussing where these obligations stem from, we focus on two objections of the stakeholder framework: the objections of moral laxity

1 For a more thorough discussion of the question whether organisations can have responsibilities, consider Patricia H. Werhane's Persons, Rights, and Corporations, especially chapter 3 on "Rights, Responsibilities, and Corporate Accountability", 1985 Upper Saddle River, Prentice Hall, or Peter A. French's Collective and Corporate Responsibility, 1984, New York, Columbia University Press.

and moral arbitrariness. They provide us enough reason to question if the stakeholder view is the right framework to think about a manager's moral obligations.

2.2 The Social Responsibility of an Organisation is to Increase its Profits

After the first waves of CSR, critique started to erode the incumbent business ethics practice, and Milton Friedman published his renowned contribution to the debate in the New York Times Magazine (1970). He repeated famously what he already argued for in Capitalism and Freedom: "[T]here is […] only one social responsibility of business – to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game" (Friedman 1962: 112).

As already brought forward in our introduction, it was Friedman who interpreted the term 'responsibility of business' as the responsibility of corporate executives. He substantiated his claim even further by stating that corporate executives or managers have a direct moral responsibility to their employers or shareholders. In detail, the managers are responsible to run the organisation in accordance with the desires of the shareholders. Casually, he suggested that the basic desire of a shareholder is for profit maximisation under the condition of compliance with the basic rules of law and those of ethical custom (cf. Friedman 1970). Still, he did not exclude the possibility that the shareholder's desire might also be of another nature than pecuniary, e.g. welfare. In this case, the executive's responsibility would consist in maximising welfare. In either case, Friedman emphasised that the manager is responsible to the shareholder. It needs to be said that Friedman did not negate other responsibilities the executive might have as an individual to other individuals or organisations, such as to her family or her cricket club. However, if the manager suddenly started to assume social responsibility as a manager (e.g. make expenditures in order to reduce pollution), she would be "spending someone else's money for a general social interest" (Friedman 1970). She would leave her assigned role in the game and interfere with the market mechanism, which could be interpreted as trying to be executive, legislator and jurist at the same time, according to Friedman. Her role, however, as a corporate executive, consists in serving the interest of the shareholders.

2.4 Moral Laxity vs. Moral Arbitrariness

All things considered, how should we behave when doing business? This is the question professional ethics seeks to answer. In other fields of management, research progress is made in a descriptive or predictive manner, telling us how to act to pursue a particular goal, e.g. increasing turnover, reducing costs etc. The difference between business ethics and management studies in general is that the former is dominated by "normative concerns" while the latter provides strategic or "instrumental justifications" (Donaldson/Preston 1995: 71 and 77). Business ethics tells us how we should act, full stop (cf. Sandbu 2011: 14).

The pressing question in relation to the two approaches to business ethics described above is whether they are successful in answering 'how we ought to act when doing business'. To come to the point: Neither one is successful in achieving this goal. According to the shareholder view, the only social responsibility of business is to increase its profits. However, this does not suggest that managers have no moral obligations. It is not an amoralist or subjectivist position. Friedman's claim is beyond all doubt a moral one. Managers are under a real moral obligation, which is to manage their organisation exclusively in their shareholders' interests, which is in most cases to maximise profits (cf. Sandbu 2011: 17). This is often the reason for considerable misunderstanding. Profit maximisation should be viewed as a managerial obligation and not as an expression of self-interest. A tendency in business ethics literature is to dismiss the profit motive out of hand. It is "more often treated as a piece of apologetic than as a serious piece of moral reasoning" (Heath 2004: 70). Getting back to the justification of the profit motive later on in the article, the shareholder perspective is problematic, not because it is morally lax but because profits are not intrinsically good. In the case of a doctor, the doctor's obligations flow naturally from the objective (or at least should), which is to restore the patient's health. Health is widely regarded as a desired end, and thus the doctor's actions serve to promote a state of affairs that is morally desirable. In an organisational context, things are more complicated. Imagine that a manager makes a decision that disadvantages workers in order to benefit shareholders: the profit maximisation generates a distributive transfer that is by no means sanctioned. In fact, under special circumstances, the transfer will be regressive and thus problematic from a moral point of view. This problem arises from the institutional setup of free markets. Profits in themselves are only indirectly justifiable with some appreciation of what justifies the system of private enterprises (cf. Heath 2004: 72–74). In summary, the problem with the shareholder view is not that it is amoral but that it fails to integrate other motives into its moral scope besides the profit motive. A manager not only has permission to manage an organisation solely to maximise profits, but he is morally required to do so. It is certainly a mistake to think that a manager ought to do whatever the shareholders desire.

The stakeholder framework, on the other hand, can be accused of being morally arbitrary instead of morally lax. But why is this the case? Under the hood of the stakeholder framework, a certain set of morally relevant agents X entering the moral scope are put under the umbrella of the stakeholders of the organisation. As Freeman claims, managers must exercise moral restraint when dealing with stakeholder groups, and shareholders are just one group among many stakeholder groups. Managers have fiduciary duties toward all stakeholders (Freeman 1984; Boatright 1994). It is within the set X of moral relevant agents (stakeholders) where the hustle and bustle takes place and renders the framework difficulty from different angles. One problematic perspective is the identification of relevant stakeholders in the set X in the first place. Depending on how narrowly or widely the set of morally relevant agents is defined, the set X consists of very different agents and hence very different objectives. This so-called identification problem can be illustrated as follows.

Freeman himself distinguishes between a wide and narrow group of stakeholders, whereas other scholars, such as Clarkson, name them primary and secondary stakeholders (cf. Freeman 1984: 46; Clarkson 1995: 105). The latter refers to the set of groups that are vital to the success of the firm. It includes employees, customers, suppliers and often the local community. The former tends to be so widely defined as to include all of society. But a manager's sanity would be threatened strongly if he were to argue why the firm should watch out for the inflation rate because "every pricing decision of the company contributes to the national inflation rate" (Heath 2006: 544). According to this view, every decision of the firm affects every member of society. In the wide definition, everybody who is affected by the organisation is a stakeholder. As a consequence, everyone is a stakeholder in everything. This view "collapses [...] into general ethics" in the sense that managers have fiduciary duties for an entire society (Heath 2006: 544). It is too far-fetched and too strong a requirement that managers should be motivated by considerations of social justice, for example, as general ethics would require from them. Thus, while the wide group of stakeholders is unsuitable for an account of professional ethics, the narrow definition leaves too much room for interpretation as to which employees, customers and suppliers are vital for an organisation's existence. This dichotomy of a wide and a narrow group of stakeholders can be objected to as arbitrary because it is hardly morally justifiable where the line of division needs to be drawn (cf. Heath 2006: 544).

Even if this dispute could be settled, stakeholder frameworks would still suffer from the so-called squeaky wheel bias: Not all of the stakeholders of the narrow group are necessarily affected to a larger extent by an organisation's particular action than those stakeholders in the wide group that do not have any voice. In terms of potential welfare loss, groups other than the narrow stakeholders might suffer even more. Independent of whether stakeholders belong to the narrow or the wide group, those who are best organised tend to make their voices heard (cf. Heath 2006: 544). The smaller the groups, the better organised they are due to their ability to avoid shirking among members (cf. Olson 2009). This translates into smaller groups making their voices heard best. Let us take an example to buttress the squeaky wheel bias: in 2008, Nokia decided to close down a production plant in Bochum and to move it to Romania. A standard multi-fiduciary stakeholder approach requires managers to take into account the impact such a decision has on both employees and the local community whose livelihood depends upon their wages. Additionally, Nokia's suppliers' and their employees' interests should be considered when facing such a decision from a managerial perspective. In this case and in other similar organisational decisions, the local community, living where the new factory would be placed, is often neglected. Presumably they have a lot at stake, not only in terms of potential welfare gain or loss. Stating this, does not make any judgement on whether Nokia's closing of the German-based factory was good or bad, but it is questionable whether the relationship which was built over time with the local community in Bochum can justify ignoring the interest of the Romanian community. From a moral point of view, there is no apriori reason why the potential employees' interests should weigh less than the actual employees' interests (cf. Mitchell et al. 1997: 858). The difference lies in the possibility for either community to be regarded as a relevant stakeholder group. A set of not yet known workers in Romania cannot form any sort of community and make their voices heard. Stakeholder theory focuses on the relationship between the management body and different 'groups', and it seems to be obvious that those groups who can form a coherent body of interests are privileged (cf. Heath 2006: 545).

It can be said that as a result of the narrow vs. wide distinction of stakeholder groups, the theory introduces an unacceptable element of arbitrariness into business ethics. In addition, the relationship between the management of an organisation and its stakeholder groups can be biased in terms of the representation of interests by the relevant stakeholder groups. Those groups that are better organised might be granted more attention even if they are not affected to a large extent in terms of e.g. welfare.

3. Introducing the Market Failure Approach

3.1 Heath's Idea of a Market Failure Model

As discussed in section two, the approach to describe the moral responsibilities of managers in terms of fiduciary obligations towards several stakeholder groups is problematic. The approach is intuitively appealing because of the incorporation of managerial responsibilities besides the maximisation of profit. However, it turns out to be vague with respect to the selection of adequate stakeholder groups, or it could even collapse should social justice be considered. From this point on, this paper concentrates on a different perspective of business ethics. In particular, this perspective is that firms are obliged to maximise profit subject to the condition that they should not benefit from situations of market failure (cf. Heath 2004; Heath 2006). The section starts with a discussion of how the maximisation of profits can be justified from the background of mainstream economic theory. Having elaborated on this issue, the section then concentrates on market failures in the telecommunications industry. It will be shown that the telecommunications industry is especially prone to market failures and that the framework suggested by Heath appears to be a promising fix (2004; 2006). Heath's idea of the market failures model stems from the fact that "growth of regulation over the course of the twentieth century goes hand-in-hand with the increased positive economic role of the state in supplying public goods. Both represent strategies aimed at correcting market failure" (Heath 2006: 548). Instead of governmental efforts to increase socially responsible corporate behaviour through extended legal regulations, CSR efforts in the market failures approach are triggered by the market itself. Subsequently, the market is able, at least in theory, to increase socially responsible behaviour by organisations through its own mechanisms. Whenever a Pareto-efficient state is achieved, no one can be made worse off. Hence, an acceptable outcome for all market participants is reached. "Put more simply, the ethical form does not seek to profit from market failure" (Heath 2006: 550). However, our discussion results in altering the criterion of Pareto-optimality because it is inapplicable in real-world markets.

3.2 Preliminaries, Justification of Profit, and the Perfect Competitive Market

Markets in general are characterised by three characteristics: they direct the action of its participants; membership is involuntary; and participants are system takers (cf. Wollner 2013: 6).[2] It can be said that as an individual alone, it is not possible to leave or change the system as a whole. In fact, even states are directed by the market system, and when they decide not to take part in the system, their economy is severely harmed, e.g. North Korea. Theoretically, states are not directed by the market system because all transactions are voluntary. Yet, this assumption is questionable because the size and the impact of large multinational organisations let you assume the opposite. Leaving such issues aside, how can the market system (maximisation of profits) be justified to all its participants?

Economic theory teaches us that the market system is a place of exchange. This exchange system results in a Pareto-efficient outcome whenever three conditions for a so-called perfect or competitive market are satisfied. These conditions are the following: firms seek to maximise profit (1), consumers seek to maximise utility (2) and the market clears (3) (cf. Mas-Colell/Green 1995: 313–315). In a competitive market economy, there is a supply side and a demand side. Firms seek to maximise profits on the supply side, because this leads to competition and contributes to an efficient outcome. A competitive market will lead to a price which equals the lowest costs of production (cf. Mas-Colell/Green 1995).[3] The profit motive of the firm, therefore, contributes to the efficient use of the resources given the available resources and technology, because it drives out firms producing inefficiently, i.e. using more resources (causing higher costs) than necessary, given the available technological possibilities (1). On the demand side of the market, the consumers are required to maximise their utility (mirroring the profit maximisation criterion on the supply side). The consumer maximises her or his utility subject to his/her preferences and the respective prices. The condition of utility maximisation requires the consumer to buy preferred goods at the lowest price possible. This will contribute to the maximisation of his/her utility because the consumer can spend the remaining money on other goods and thereby increase their utility (2). If there is lower demand as compared to the supply of the good, the price goes down and vice versa. The market clears if both conditions are satisfied (3). In such a state, the market is in a competitive equilibrium

2 Wollner is, in particular, describing features of the international financial system. It is assumed here that similar conditions hold as the financial system is part of the market system in general.

3 Chapter 10 in Mas-Colell provides an analytical solution.

because conditions (1), (2) and (3) are satisfied and a Pareto-efficient state can be achieved. The described mechanism is often referred to as the 'price mechanism', whereby the importance of a working price mechanism is the resulting price itself. The price coordinates the behaviour, i.e. the use of the available technology and resources of market participants. Such a situation would be Pareto-efficient. This is exactly why the price mechanism is valued for its efficiency effects: it allows us to minimise waste. The formal proof is known as the "first fundamental theorem of welfare economics (FFT)" (Mas-Colell/Green 1995: 326). The FFT is well known as the 'invisible hand theorem'. What this theorem tells us is that the outcome of a perfect competitive market economy will be Pareto-optimal. Hence, it will not be possible to improve any one's condition without negatively affecting someone else's, and this is why the maximisation of profits should be valued. It secures a working price mechanism which in turn secures a perfect competitive equilibrium which is Pareto-optimal. "An allocation that is Pareto optimal uses society's initial resources and technological possibilities efficiently in the sense that there is no alternative way to organise the production and distribution of goods that makes some consumer better off without making some other consumer worse off" (Mas-Colell/Green 1995: 313). We now turn to the discussion of what happens whenever such a Pareto-optimal state cannot be achieved. These situations are often referred to as market failures.

3.3 What is a Market Failure?

Francis M. Bator was the first scholar to describe a market failure in 1958: "Typically, at least in allocation theory, we mean the failure of a more or less idealized system of price-market institutions to sustain 'desirable' activities or to stop 'undesirable' activities" (Bator 1958: 351). Even though that is only half of the definition he provides, we would rather try to derive its meaning ourselves. As the word 'market failure' already suggests, the market fails to do its job. Its job consists of inducing an efficient allocation of resources to the market participants. Hence, in a market failure, there is an inefficient allocation of resources. The main problem with inefficient markets is that they are not Pareto-optimal, i.e. there would be another possible outcome where at least one participant could be made better off without worsening another participant's situation. Consequently, the first question that might arise is: Why do markets fail? There are, in fact, seven basic causes for market failure: non-excludable goods and services, inefficient exclusion, missing markets, information asymmetry, limited common property resources, externalities and monopolistic supply. One or a combination of these factors lead to inefficient markets (cf. Lipsey/Chrystal 1999: 274; Buckley 2003: 28).

3.4 Market Failures and Pareto-Optimality?

Pareto-Optimality and Ideal Markets

How can market participants avoid market failure? Posed differently, what can be done to achieve the Pareto-superior outcome? The answer to that question is simple: Market failure can be avoided by satisfying the Pareto-optimality conditions. In ideal markets, the Pareto-optimality conditions that are said to characterise economic efficiency are:

1. "The Marginal Rates of Substitution between any two goods are the same for all people"
2. "The Rate of Technical Substitution between any two inputs are the same in the production of all goods"
3. "The common Marginal Rates of Substitution between any two goods equal the Marginal Rate of Product Transformation between those goods" (University of Colorado 2000:1).

These three conditions are often called 'conditions of perfect competition' and are often reproduced less mathematically as: "rational conduct on the part of buyers and sellers, full knowledge, absence of frictions, perfect mobility [...] perfect divisibility of factors of production, and completely static conditions" (Robinson 1934: 104) or as Stigler suggests, "indefinitely many traders [...] acting independently [...] [and] full knowledge" (Stigler 1957: 14). If these conditions were satisfied, markets would be efficient, and the resulting allocation of resources would therefore be Pareto-optimal, i.e. a situation in which no person's situation could be improved without leaving another person worse off. Despite the fact that markets have to fulfil 'only' these three requirements in order to avoid the above-mentioned causes of market failure and to produce Pareto-optimal outcomes, they are never fulfilled in real life. Why?

Pareto-Optimality and Ideal Markets

In real world markets, i.e. non-ideal markets, not even the first Pareto-optimality condition can be satisfied. This is no surprise as the Pareto-optimality conditions only apply in ideal markets. Let us consider the first condition (1): It states that your marginal rate of substitution (MRS) between any two goods is the same as your mother's MRS. The MRS describes how much of a good G a consumer is willing to give up if she is offered in return an additional (marginal) unit of good W. Let us suppose, for example, that your MRS of a gin tonic and a whisky coke equals 3. That means, you are indifferent in choosing between three gin tonic and one whisky coke, i.e. you are willing to pay three times more for a whisky coke than for a gin tonic. The first condition (1) of Pareto-optimality not only states that people's MRS are all the same, but even that people's MRS are all the same for any two goods. Just consider the differences of taste between you and your mother, and you will – most probably – doubt that even the first condition can hold in real world markets.

Apart from conditions (1) – (3), which are problematic, it is not enough to know that one state is Pareto-inefficient while the other is Pareto-efficient to conclude that the second is Pareto-superior – and therefore morally better if the Pareto criterion is adapted to the first state. These cases are Pareto-incomparable situations. Situations of Pareto-incomparability always occur whenever some individuals are better off in the first than in the second state, but others are better off in the second than in the first state (cf. Sandbu 2011: 72).[4] In such situations, the Pareto criterion cannot be action guiding.[5] Linking this to a manager's situation, it would not be possible to assess the rightness or wrongness of a particular decision. Managers are stuck in the status quo and left with no practical advice.

3.5 The Market Failure Model

At the end of the previous section, we suggested that market failures could be avoided by satisfying the Pareto-optimality conditions. However, we just provided examples which show they cannot be fulfilled in real world markets. Nevertheless, market failures do not simply have to be accepted as a negative side effect. There is a possible way out: the institutional solution to market failure is governmental intervention and regulation. The classic economics textbook example suggests that governments levy taxes in order to e.g. reduce negative externalities or provide public goods. However, governmental intervention also has its weakness: it might result in government failure

4 Imagine a case where different levels of well-being are assigned to individuals. When person A is equipped with 60 and person B with 40 in situation X, and A is equipped with 50 and B with 60 in situation Y, the principle cannot be action guiding.

5 In economic theory, comparisons like this actually can be made applying the so-called Kaldor-Hicks-Criterion (cf. Stringham 2001). Due to the fact that there is no direct link to the argument presented in the paper at hand, it is not discussed here further.

which is basically the public sector analogy to market failure (cf. McKean 1965; Wolf 1979). To be fair, one would probably have to distinguish between market and non-market failure and consider government failure a sub-species of non-market failure (cf. Wolf 1979). Wolf describes the challenges of intervention as a means of remedying market failure which might bear the risk of inducing a non-market failure as follows: "Where the market's 'hidden hand' does not turn 'private vices into public virtues,' it may be hard to construct visible hands that effectively turn nonmarket vices into public virtues" (Wolf 1979: 113). Subsequently, we will present Joseph Heath's approach to how to deal with market failures from a managerial perspective, taking into account the danger of provoking a non-market failure.

Based on the condition of perfect competition, i.e. in an ideal market, the only way in which organisations can compete with each other is through prices, quality and innovation. Heath refers to these variables as the set of "preferred competitive strategies" (Heath 2006: 549). All the other strategies (e.g. advertising) are ineffective in an ideal market due to the draconic Pareto-optimality conditions. However, in non-ideal markets, other competitive strategies than those preferred competitive strategies are thoroughly effective (and probably even necessary for an organisation to survive). Heath refers to these kinds of profit-seeking strategies as non-preferred (cf. Heath 2006: 550; Jaworski 2013: 3). As examples of non-preferred competitive strategies, he mentions the production of pollution or the selling of products of a quality inferior than promised. The first example is an instance of negative externalities and the second an instance of information asymmetry. Externalities and information asymmetry are two of the seven causes for market failure mentioned earlier in this paper. Non-preferred competitive strategies consequently lead to market failure. In other words, organisations that implement non-preferred competitive strategies contribute to a suboptimal resource allocation.

On these grounds (recalling that profit maximisation is indirectly justifiable due to the invisible hand theorem, the FFT) and according to the market failure model, an organisation's social responsibility consists of deploying only preferred competitive strategies. In order to approach the ideal of perfect competition, an organisation should pursue profit maximisation under the constraint of refraining from benefitting from market failure. In Heath's words: "the ethical firm does not seek to profit from market failure" (Heath 2006: 550). Eventually, an organisation's social responsibility involves pursuing the goal of profit maximisation without availing itself of market failure because this is how social welfare is maximised.

3.6 Market Failures in the Telecommunications Industry

In the telecommunications industry, you can encounter all of the seven aforementioned causes of market failure. Monopolistic supply is predominant in the telecommunications industry (cf. Buckley 2003: 27). In this section, we will expand on each of the seven causes for market failure that might occur in the telecommunications industry. We start the analysis with the least relevant factor and continue then in an order of increasing relevance.

Non-excludable goods and services (i.e. goods and services where it is either impossible to exclude access to people who do not pay for it, or the cost of exclusion is prohibitively high) play an unimportant role in causing market failure in the telecommunications industry. Still, there are some well-known examples, such as radio broadcasts that fail to exclude listeners that do not pay. Buckley adds, however, that it is a minor problem due to the fact that the majority of broadcasters and network providers can nowadays encrypt their services and introduce pay models, which makes their services thereby excludable (Buckley 2003: 28).

Inefficient exclusion is the second type of market failure that might occur in the telecommunications industry. Let us take a mobile Internet provider as an example in order to better understand this concept. The service that the organisation offers is 4G mobile Internet technology for smartphones. The service is excludable (you need to be a subscriber) and non-rivalrous (our consumption does not decrease your possible consumption), at least up to a certain number of users. The marginal cost of adding another user to the service is close to zero until the network operates at its full capacity. Any amount of subscription fee that the organisation charges results in a non-optimal use of the network. It costs the organisation nothing to let another user access the service, but to cover its fixed expenses, the organisation must collect a contribution. The prices for the service will therefore exceed the marginal costs. Thus people who are willing to pay more than the marginal costs but less than the imposed fee will not use the network, i.e. the market fails to allocate the service optimally (cf. Lipsey/Chrystal 1999: 276).

Missing markets are a cause of market failure and are best known for things such as public goods, common property resources and common pool resources. This cause arises when goods or services should be traded in order to achieve an optimal allocation, but there are no corresponding markets. Sometimes missing markets persist despite a constant demand, e.g. there exist house insurance policies against fire caused by ‘ordinary’ incidents; however, there is no market for house insurance policies against fire caused by acts of war (cf. Lipsey/Chrystal 1999: 289). In the telecommunications industry, there is (often) no market for preferred telephone or cell phone number combinations. Another currently still missing market which could soon emerge is the market for fast and slow Internet 'lanes' suggested by the Federal Communications Commission. Instead of an open, free Internet broadband with the same speed for every Internet user ,a for-pay, high-bandwidth option and a slower for-free option have been suggested to create markets where they are missing (cf. Hahn/Wallsten 2006).

Information asymmetry is a key concept in principal-agent theory. It occurs if one party is better informed in a contract situation than the other party. Information asymmetry arises mainly due to hidden characteristics, hidden information, hidden action or hidden intention (cf. Erlei et al. 2007: 148). It can result in shirking, moral hazards, adverse selection and other Pareto-inferior allocations. In the telecommunications industry, it is mainly domestic customers who are at a disadvantage due to information asymmetry. Experts and shopkeepers can talk their customers into products, tariffs and services, which the latter do not or only partially understand. Economic inefficiencies are created every time that a consumer pays too much or buys products that do not suit her needs (cf. Buckley 2003: 28).

Limited common property resources are among the most famous causes of market failures in the scholarly world, not only due to Garrett Hardin's Tragedy of the Commons and Elinor Ostrom's publications on common pool resources (Hardin 1968; Ostrom 1990; Ostrom et al. 1999). However, one would hardly associate the problem of common property resources with the telecommunications industry. Yet, there are scarce common resources such as radio spectrum, numbering and addressing capacity as well as hardware which is based on finite resources.

Externalities are actions of consumption or production that benefit (positive externalities) or harm (negative externalities) some market participants while the originating source is not being compensated (positive externalities) or is not compensating (negative externalities) for causing them. Externalities take place outside of market schemes and are not counterbalanced due to a lack of property rights (cf. Erlei et al. 2007: 304–305). They are not taken into account by the aforementioned price mechanism and therefore result in inefficient allocations. Pollution is by far the best-known example of a negative externality. The air pollution generated along the supply chain of a telecommunication hardware provider is neither compensated for by the end customer, the manufacturing organisation nor by its suppliers. The costs of air pollution (global warming, health hazards) are externalised, i.e. instead of being built into the cost of the production and passed on to the customer, the costs are shifted on to third parties. Therefore, the product's price does not mirror the entire costs, which in turn impedes the price mechanism from 'doing its job'. Apart from pollution, other possible negative externalities in the telecommunications industry include radio interference and the disfigurement of sites. Yet, there is also a common positive externality characteristic of the telecommunications industry: network externality, probably better known under the name of network effect. Let us consider a paid-for instant messaging service as an example. If you are the only user, the service will not be of much use to you. However, having your best friend joining in, your utility increases. With every new user entering the network, yours and your friend's utility snowballs without any further expenses. The telecommunications industry, based on interconnected networks, contains many more positive and negative externalities. Unfortunately, we cannot expand on all of them, but we will not withhold Buckley's example of a negative externality: "The utility to its recipient of an incoming call paid for by the caller is strictly speaking an externality, although it is rarely treated as one" (Buckley 2003:29). It is actually true that (almost) every time you are called, you benefit without paying for it: this is the definition of a negative externality.

Monopolistic supply is predominant in the telecommunications industry (cf. Buckley 2003: 27). This is mainly due to the fact that the telecommunications industry is said to be a 'natural monopoly'. Posner defines a natural monopoly as follows: "If the entire demand within a relevant market can be satisfied at lowest cost by one firm rather than by two or more, the market is a natural monopoly" (Posner 1969: 548). The invisible hand is said to produce efficient allocations only in markets with perfect competition. However, the case of a natural monopoly is different. If there are several organisations competing in a naturally monopolistic market, the outcome will be inefficient. Therefore, competition in a natural monopoly leads either to a natural selection where only one enterprise will remain or the production of the competing organisations will be more costly than necessary (cf. Posner 1969). Due to the fact that competition can be discarded as a regulatory mechanism to mitigate market failure in natural monopolies, governments have turned to so-called 'common carrier regulation' (cf. Buckley 2003: 28.).

4. Application of the Market Failures Model with the Justifiability-to-Each Criterion

4.1 Justifying Market Activity to its Constituents

Under the condition of a perfect competitive market, the only way firms could compete was through prices, improved quality and product innovation. These are the set of preferred strategies, which are secured by the Pareto conditions that specify the terms of perfect competition. As Heath admits himself, the Pareto conditions are never met in the real world.

> "In order for competition to generate an efficient allocation of goods and services, there must be an absence of externalities (e.g. a complete set of property rights), symmetric information between buyers and sellers, a complete of insurance markets, and rational, utility-maximizing agents with dynamically consistent preferences. Because of the practical impossibility of satisfying these constraints, firms are often able to make profit using non-preferred competitive strategies, such as producing pollution, or selling products with hidden quality defects" (Heath 2006: 550).

Thus, what does the market failures approach counsel managers to do if it is neither possible to achieve a situation of perfect competition nor to rule out non-preferred strategies? There is very little that can be done. In any case, there are such things as externalities (which are referred to as non-preferred strategies). Freezing all economic activities in order to stop the production of pollution completely is not a recommendable solution. Heath, who admits this, suggests that the market failures approach allows us to pick the "right level of pollution" (Heath 2004: 83). This sounds nice in theory but is as problematic as the Pareto conditions in real world markets.

The Pareto principle is conceptually problematic and difficult to apply in real world markets as discussed extensively in the previous parts of the paper. For example, the Pareto principle admits to situations, where some get nothing from the participation in the system and others get it all if this was the initial situation. The concept of 'justifiability-to-each' solves this problem. It measures market activity differently than the Pareto criterion, namely in terms of the greatest individual complaint. The principle assumes that reasonable actors would choose an economic system which "minimizes the greatest individual complaint", or put differently, which is most acceptable to those it is least acceptable to (cf. Wollner 2013: 11). The economic system "[...] must be justifiable to each participant in terms of how it advances his or her interests, taking into account that the same justificatory requirement applies to everyone" (Wollner 2013: 10). Please note that this principle is much stronger than simply avoiding harm or negative externalities. A justification requirement, as proposed here, assures the parties involved that the interests of all are taken into account equally. It does not require that all interests are satisfied but that all voices of affected agents are heard in the decision-making process. Why does the justifiability-to-each principle work in spirit of the Pareto criterion? In brief, it is assumed that the principle implies a notion of efficiency in the sense that when reasonable actors choose a kind of market system that is justifiable to everybody in terms of minimizing the greatest complaint, it promotes increasing economic efficiency. The principle assures that when the greatest complaints are minimized, technologies and available resources are used in the best way possible. Hence, it will increase the overall market outcome because all interests are taken into account equally. The respective outcome might not satisfy the Pareto conditions but aims to be as close as possible under the given circumstances. Under the premise that 'reasonable', not 'rational' actors, choose an economic system, it might be the closest to the Pareto-optimal state to satisfy the justifiability to each principle instead of trying to satisfy the FFT by heart.

4.2 Application of the Principle 'Justifiability-to-Each'

Imagine a telecommunication organisation that aspires to set up a new tin mining plant for their newest smartphone: How should managers act when deciding upon the location of the mining plant? What are their responsibilities in the decision?

Executives that follow Heath's approach will spot (at least) two market failures in the above-mentioned decision: externalities and information asymmetry. Let us concentrate on one in order to not necessarily complicate the example. One of the information asymmetries exists between the end consumer and the producer. The smartphone consumer has a relatively low willingness to pay because she does not know enough about conflict minerals. The executives decide to maximize profit under the constraint of not benefitting from market failures. Competing only through preferred strategies (quality, price, innovation), the management is conscious about the difficulty of finding both cost-effective and conflict-free locations for their mining plant. Their decision might be a compromise between the two, but in contrast to the shareholder approach, the organisation will provide a transparent overview of its supply chain to the end customers in order to not profit from the market failure of information asymmetry. However, the managers will not be able to know which of the various market failures constitutes the biggest welfare loss in terms of the Pareto criterion. Therefore, they might succeed in alleviating one market failure but will most probably fail in achieving a Pareto-optimal allocation.

Our mechanism replaces the Pareto criterion with the justifiability-to-each criterion. Consequently, our approach is somewhat different, but it works in spirit of the Pareto criterion. Instead of trying to diminish market failures and achieve a Pareto-optimal state, the manager would instead still try to maximise profits but subject to the condition that complaints by the worst off are minimised. The implemented organisational process of setting up a new tin mining plant is then justified if it is most acceptable to those reasonable agents it is least acceptable to. How might such a process look in practice? On the one hand, the firm wants to increase its profits by mining tin cheaper in country A, where acceptable working standards are non-existent. On the other hand, the worker in country A might receive a decent wage but is exposed to high risk due to the lack of security measures and a lack of employee standards. While workers probably could not complain about the nominal wages they receive from the firm, they could complain about the high risk and the low working standards they face in country A. Due to the difference in the price level in A compared to some other country B, it would be a permissible strategy to lower the mining costs because the wage level in A is lower, and the worker can still afford a life worth living in country A. However, the workers in country A could reasonably complain about the poor working conditions they face. It would not be a permissible strategy of the firm to lower the mining costs by putting workers at excessive risk at their working place. The manager in question now faces two options. One strategy would be to shift the tin mining plant to a different country where acceptable standards are prevalent viz. legal standards and better monitoring by the authorities. While this might not be possible because tin resources are scarce and are not movable like production plants, the organisation should aim at providing acceptable standards where the tin mining plant is located. In other words, it is in general acceptable for the organisation to profit from lower wage rates (preferred strategy), but it is not acceptable to justify profiting from a situation where the poor workers carry the higher risk (non-preferred strategy).

5. Discussion and Conclusion

Our paper contributes to CSR research by broadening the perspective of existing CSR paradigms. Our proposed scheme of managerial responsibilities sits at the confluence of profit-oriented market mechanisms and responsible business practice. Existing normative theories and concepts, such as stakeholder approaches (cf. Freeman 1984; Litz 1996), provide general managerial action guidance. But they often fail to reflect context-specific complexity of situations in organisations in the sense that predefined stakeholders are not necessarily those groups which are involved or affected by managerial decisions in organisations. In this paper, we questioned if stakeholder frameworks are able to give guidance in terms of how a manager should act, or what an organisation's social responsibilities truly are. First, the selection of relevant stakeholder groups can be arbitrary from a moral point of view because it is not clear how the selected groups of stakeholders enter the relevant set and are considered as stakeholders for the organisation. Second, we elaborated on the squeaky wheel bias, from which stakeholder frameworks suffer. Consequently, those stakeholder groups which are better organized and make their voices heard are not necessary those groups that have most at stake, e.g. in terms of welfare.

What distinguishes our proposed scheme of business ethics from stakeholder frameworks is the manner of how its implied constraints on managerial actions are derived. Rather than trying to derive it from general morality, our modified version of the market failures approach takes its guidance from the FFT. It asks what conditions must be satisfied in order for the market economy as a whole to achieve efficiency in the production and allocation of goods and services (cf. Heath 2006: 551). The very basic idea is that in the same way the state has to justify its activities to its citizens, organisations have to justify its activities to whom its activities are least acceptable to, in terms of how the activities affect their interests. It is an adjusted version of the Pareto criterion which assumes that reasonable actors would choose an economic system that "minimizes the greatest individual complaint", or, put differently, which is most acceptable to those it is least acceptable to (cf. Wollner 2013: 11). Our modified market failures approach works in spirit of the Pareto criterion because it minimises individual complaints, implying that preferences of different actors are equally taken into account equally but not satisfied equally. We assume in this paper that minimising the greatest individual complaint will contribute to deploying the available resources and technologies in such a way that the overall market output increases and economic activity is made more acceptable to society. From a manager's perspective, this implies that he or she is morally required to maximise profits subject to the condition that the greatest individual complaint is minimised.

At the very beginning of the paper, we asked, "How should we act when doing business, and what are the responsibilities of a manager qua manager?" The term 'qua manager' is an essential component of the professional ethics account which states that business ethics is concerned with the special duties that arise out of the managerial role, and which are imposed upon the manager qua manager and not qua individual. At this point, our contribution to the debate is theoretical in nature. With the conceptual underpinnings set in this paper, it should be possible to develop a guideline to implement our proposed scheme in the real world. From our point of view, contractualism (cf. Donaldson/Dunfee 1994; Scanlon 1998) would be one promising candidate in which to embed our theoretical framework into a strong normative core. This is because the key idea of contractualism is that normative truths – normatively relevant propositions – are defined procedurally as the outcome of (in almost all cases) hypothetical contracts or agreements between the relevant agents. Hence, a normative proposition is true or justified just insofar as all relevant and reasonable agents agree or should agree with it (cf. Frederiksen/Nielsen 2013: 26). This fits very nicely with the framework developed here. The core of our hypothetical contract would be that the outcome is morally desirable if the greatest individual complaint is minimised. Whatever the outcome informed by the hypothetical contract, it will necessarily emphasise reciprocity and mutual acceptability, alongside the notion of reasonability.

Very roughly outlined, what might such a process look like from a managerial perspective? Imagine that a manager must decide between different ways of upgrading an organisation's means of production. She can either opt for a cheap solution (X) that pollutes on a high level or a more costly one that reduces pollution (Y). From a shareholder perspective, it should be clear that it would be morally required by the manager to choose X because it might maximise shareholder value. From a stakeholder perspective, it depends who the stakeholders are and how distant or close the stakeholders might be considered in options X and Y. From a contractualist position, the evaluation of the options would be completely different. The outcome would be different in the sense that our scheme would choose the option which minimises the greatest individual complaint and finds the 'right' level of pollution which would be justifiable to reasonable people on grounds of mutual acceptability and reciprocity. The outcome would be in spirit of the Pareto criterion in the sense that it maximises the utility for all of the society under the given circumstances.

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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.

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"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. CO2 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 philosophical 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 Suffiency 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 polices 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 develop¬ment 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 Decouling 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

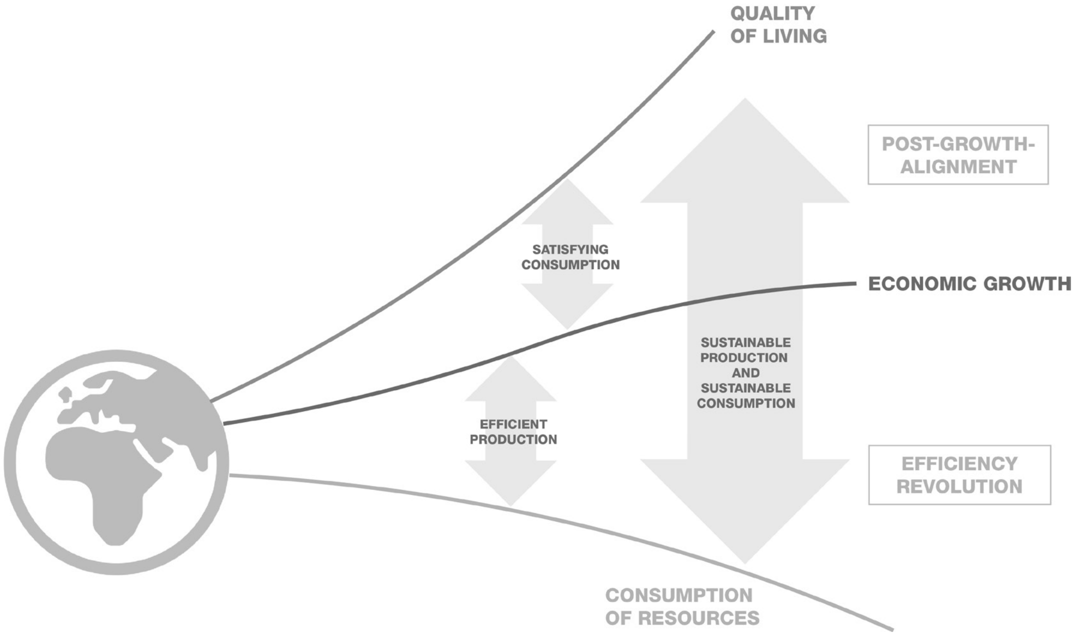

FIGURE 1:DECOUPLING OF THREE DIMENSIONS
(SOURCE: OWN ILLUSTRATION BASED ON SCHNEIDEWIND/PALZKILL 2012: 24)

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[1] 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

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.[2] 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.

2 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).[3] 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

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.[4] 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.

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 Suffiency 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.[5]

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

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

at a time"[6]. 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

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.[7] 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).[8] 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

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.[9] 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.

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.[10] 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-aheaders 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

10 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.[11] 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.

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.

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CORPORATE RESPONSIBILITY IN THE TELECOM SECTOR

CSR Profiling

A Corporate Social Responsibility Profile for the Telecommunication Industry

Appropriate CSR Activities in the Telecommunication Industry with the Example of BlackBerry

Matthias Meller and Sebastian Zimmer

Keywords

BlackBerry, Corporate Social Responsibility, CSR Industry-Specific Profile, Teleccomunication Industry

The article examines the idea of Corporate Social Responsibility (CSR) from both the current academic and economic perspectives and offers an overview of common CSR objectives and best practices. The objectives are arranged into a matrix that serves as an initial point to develop a CSR strategy. Clearly, there is no "one-size-fits-all" solution to it. Instead, this article argues that there is a necessity to craft an industry-specific CSR strategy based on the defined needs and characteristics of a particular branch. For this purpose, this paper refers to the telecommunication industry and recommends core elements for suitable CSR strategies. The recommendation refers to an actual example: Blackberry, a major company in this industry. By analysing similarities and differences to the environment BlackBerry is operating in, the paper closes with advice for BlackBerry's CSR strategy.

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1. *Introduction into Corporate Social Responsibility*

1.1 Preface

What is Corporate Social Responsibility (CSR) and what does it require me to do? This is probably one of the most asked questions by business executives responsible for this area – and yet it remains utterly unanswered. This does not mean that answers do not exist, rather the contrary. Van Marrewijk formulates his answer in a fitting manner that "[corporate] social responsibility is a brilliant term: 'it means something, but not always the same thing to everybody'" (Van Marrewijk 2003: 96). In a nutshell, this is the very problem with CSR and business ethics in general. Decades of debates among both academics and business executives have passed, but instead of an "all-embracing definition of CSR" (Ibid.: 96), numerous concepts and notions of a more responsible way of doing business have been developed. In the following, we highlight the most prominent concepts, CSR and Corporate Citizenship (CC), briefly mentioning the historical context and naming three approaches that have considerably shaped the landscape of business ethics. We close with various reasons why it is important for companies to pursue a CSR strategy.

1.2 Definitions and Discussions

Loew et al. (2004) provide a sufficient introduction into the history of CSR. CSR has its roots in the US when, at the close of the 19th century, successful entrepreneurs began engaging in philanthropic activities. Corporate Philanthropy may therefore be called one of the earliest pillars of CSR. A dedicated debate about the social responsibility of businesses began in the US in the 1950s, with Howard R. Bowen's publication Social Responsibilities of the Businessman (1953) being recognised as impetus. In 1962, later Nobel laureate Milton Friedman famously took a stance against CSR by arguing, "the social responsibility of business is to increase its profits" (Friedman 1962: 133)[1] and thereby adopting a position that is called the "classical view on CSR" by Quazi et al. (2000). It is labelled 'classical' because this business perspective focuses solely on the interests of the shareholder who, in the pursuit of profit maximisation, perceives any action that does not directly contribute to the company's financial well-being as an unnecessary cost. Thus, Friedman

1 Also used as the title for his New York Times Magazine article later published in 1970.

gave birth to an influential idea called the shareholder approach. It is opposed by the so-called stakeholder approach, a theory formulated by R. Edward Freeman.[2] It states that organisations have to take into account the interests of all groups which are relevant – by either affecting or being affected – when pursuing the business' objective and balance those interests appropriately. Those groups termed stakeholders include shareholders but also include employees, the society as well as the environment. The stakeholder theory indeed had a profound impact in the field of business ethics and frequently serves as the foundation for today's academic and business debates. On the other hand, a more recent approach developed by Porter and Kramer (2006) proposes "[p] erceiving social responsibility as building shared value" (Porter et al. 2006: 14), with shared value meaning the creation of value relevant for both business and society. This reflects the trend towards the attempt to align business responsibility with strategic needs.

Beckmann (2007) identifies the terms CSR and CC as by far the most prominent concepts which have evolved from the discussions on businesses' role within the social context. While the concept of CC can be interpreted as emphasising the business' role as a "good citizen" in acting as part of society and being committed to help solving the issues of its (broader) local environment, concepts of CSR seem to put more weight on the responsibility which arises from the company's operations (cf. Beckmann 2007: 5). Of considerable importance for the latter term has been the on-going harmonisation process with the OECD guidelines for responsible business conduct, the United Nations' initiative Global Compact and, especially in Europe, the commitment of the European Commission to a European strategy on corporate responsibility, which has resulted in two significant definitions of CSR. Nevertheless, an internationally accepted definition is still lacking, and the relationship between both terms is far from having been determined and universally acknowledged. Even with an agreed European definition of CSR, it has been observed that its comprehension and execution in terms of policies diverge substantially on national levels (cf. Beckmann 2007: 5; Loew et al. 2004: 17; Riess et al. 2006: 6-9). Eventually CSR seems to be the more used term and is also more often the subject of regulation, strategy and agenda setting in public policy than CC is, so that in the following, we will solely focus on the first term.

2 Freeman first introduced the stakeholder theory in his publication "Strategic Management: A Stakeholder Approach" in 1984.

1.3 Corporate Social Responsibility and Profits

Regardless of which definition or comprehension of CSR a company chooses to embrace, the business executive is left with the essential question with which motivation to pursue a responsibility strategy (beyond a possible feeling of moral obligation to do so). According to the shareholder approach, such a strategy either has to bear no costs or generates a net profit. Indeed, this points to the Holy Grail of any research on CSR: Does a distinct correlation between CSR performance and financial performance exist? Respectively, can well-chosen CSR actions generate a net profit?

In recent years, countless examinations have attempted to find an answer, yet with varying results. Aupperle et al. (1985), for example, criticised many studies which claimed to have found a positive correlation on methodological grounds and concluded as a result of their own survey that "[i]t seems there is insufficient evidence to support the claim that socially responsible firms are more profitable than other firms" (Aupperle et al. 1985: 462). The empirical study conducted by Ahmed et al. (1998), on the other hand, suggests that companies which include environmental consciousness in their strategy (clearly a sort of CSR action) perform better than their non-environmentally conscious competitors. In a comprehensive report on a CSR project initiated by the Austrian Ministry for Transport, Innovation and Technology, Jasch (2007) states that there is in fact a positive correlation between CSR and the company's performance but also emphasises the lack of adequate metrics to evaluate the success of CSR actions as a significant problem for both research and management. Then again, the meta-study by Loew et al. (2010) claims that whereas the link between good labour conditions and economic performance has been proven empirically, the studies on the link between financial performance and CSR in general do not suggest such positive correlation. Doane et al. (2005) takes an even stronger stance in arguing that "CSR as a concept simplifies some rather complex arguments and fails to acknowledge that ultimately, trade-offs must be made between the financial health of the company and ethical outcomes" (Doane et al. 2005: 24).

A most interesting conclusion is drawn by Blomgren (2010) in a qualitative study of executive perceptions on the relationship between CSR and profit margins. Blomgren concludes that "[t]he results herein support the contention that there is no business case for CSR in the sense of helping achieve profits above industry average, but only a business case in the sense of helping achieve profits at industry average" (Blomgren 2010: 272).

1.4 Motivation for Corporate Social Responsibility Strategies

This brief review of literature and academic debate shows that a link between financial performance and CSR is far from being proven. Moreover, even if such a link existed, it could well be that the mechanism operates so that good organisational performance rather leads to a good CSR performance than vice versa. Even simpler, the sheer number of possibly influential factors could prohibit any sound conclusion. The fundamental problem of CSR, the lack of consistent and universally acknowledged metrics to measure the social performance, persists.

Despite this seemingly discouraging conclusion, we think there are a number of valid reasons for businesses to actively pursue a CSR strategy today:

1. Increasing pressure and expectations from the public: Reviewing the literature inevitably leads to the conclusion that public pressure from civil society, media and NGOs has increased significantly. Van Marrewijk (2003) introduces a model that depicts the relationship between state, business and civil society and compares the past and the present. His claim is that with increasing mutual dependency of business and government, civil society has gained importance, allowing it to introduce new "common" values which play a major role in shaping society (cf. van Marrewijk 2003: 100). The IMPACT Project Executive Summary from 2014 notes that pressure from NGOs and media is among the most important drivers for both large and small companies to engage in CSR (cf. Öko-Institut e.V. 2014: 18). In his extensive study, Beckmann (2007) refers to representative surveys that the public expects businesses to show social responsibility and reconstructs increasing expectations as a public loss of confidence in the principle of profit maximisation and the market system as a whole.
2. A majority of companies perceive CSR as essential: Beckmann (2007) cites several representative surveys that indicate that a majority of companies see it as their duty to take social responsibility in various aspects of their operations. The IMPACT Project suggests that "CSR is seen as a 'must have' for companies" (cf. Öko-Institut e.V. 2014: 11), and a survey by The Economist implies that corporate responsibility has risen sharply in global executives' priorities (cf. Franklin 2008: 2, chart 1)
3. 3. Governmental and institutional requirements: On a European level, the European Commission, with its definitions of CSR of 2001 and 2011, exerts significant influence and formulates expectations for businesses. The development from the first to the second definition is an

expression of increased requirements: while in 2001 CSR was defined as "a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis", ten years later, the European Commission sees CSR as "the responsibility of enterprises for their impacts on society" (European Commission 2001: 6; European Commission 2011: 6). This trend should not be ignored, also because one could imagine this definition having an increasing influence on the spirit of further regulation. Apart from the European CSR definitions, other governmental regulations and institutional requirements have to be met today. Both Britain and France, for example, have passed laws that require companies listed on the stock exchange to publicise social and environmental responsibility reports. Also, certain stock indices like the Dow Jones Sustainability Indices demand the fulfilment of standards for sustainability reporting and more in order to list a company. Subsequently, if companies want to ensure that strongly regulated or specific investors can buy shares, they have to comply with certain standards. CSR commitment can thus also be perceived as a strategic management of investor relations. Beyond these needs, the standardisation process, which has resulted in standards like ISO 26000, initiatives like the GRI (Global Reporting Initiative) and the UN Global Compact as well as CSR formulations by the OECD and the ILO (International Labor Organisation), has contributed to foster institutional requirements.

4. Making use of the benefits of CSR for organisational performance: If executed well, a CSR strategy can have a significant impact on organisational performance. The extensive research project by Hauser et al. (2008) on corporate culture, work quality, employee engagement and its relation to business success in Germany shows on the basis of a large data set that an employee-orientated corporate culture and good work quality has tremendous potential for competitiveness and economic success. Therefore, CSR actions designed to develop those aspects should pay off quite well. Apart from that, Hauser et al. also note that at least for Germany, due to demographic change, there is an increasing need to improve work quality in companies to ensure attractiveness for potential employees. We think that this opens up the interesting possibility to tackle both long-term interests of companies and fundamental social issues with a dedicated CSR strategy. Putting aside the employee dimension, Jasch (2007) and Loew et al. (2010) both suggest that environmental protection and sustainability management pay off and thus a CSR strategy should take these aspects into account. Especially in terms of environmental protection, it is likely to be expensive not to undertake measures beyond what

law already requires. Taking Europe and energy efficiency as an example, it is reasonable to expect regulation tightening in the forthcoming years; consequently, it may well be a useful strategy to pursue standards above today's regulations. Jasch (2007) also suggests that if CSR actions are integrated properly into core business, they can lead to an increase in intangible company assets such as brand awareness, customer relations and employee motivation and therefore serve as an additional differentiation function.

We believe these reasons should convince businesses to actively pursue a CSR strategy today. Even if links between organisational and CSR performance are not obvious, we support Blomgren (2010) in his conclusion that CSR as a concept may then simply be "the way business is done in the 21st century" (Blomgren 2010: 272).[3]

2. Corporate Social Responsibility in (Best) Practice

2.1 Our Comprehension of CSR

In our comprehension of CSR, we foremost follow the European Commission's definition from 2011 that CSR is "the responsibility of enterprises for their impacts on society" (European Commission 2011: 6). We therefore advocate an impact-driven approach to design CSR strategies for several reasons. One is that actions should to be evaluated based on their impact, not by their actual intention. Though the intention may be admirable, if an action does not have the desired impact, it should be stopped. As the IMPACT report notes, this is mainly a problem in terms of adequate data and lack of "impact thinking" (Öko-Institut e.V. 2014: 12ff.). Thus, we argue that it is essential to develop a framework to recognise impacts and their pathways (especially to detect unintended ones) as well as design key indicators to measure the performance of an action beforehand. This also helps companies to establish a more realistic idea of what to expect from CSR actions and thereby reduces the wide gap between companies' aspirations and their actions which has been discovered by surveys, one briefly being highlighted (cf. Franklin 2008). Furthermore,

3 See also Franklin, D. 2008. Special report: Corporate social responsibility: Just good business, in: The Economist, Jan 17th: 1–21.

an impact-driven approach fosters strategic thinking in designing CSR strategies. In their paper on the link between competitive advantage and CSR, Porter et al. (2006) remark:

> "Few companies have engaged operating management in processes that identify and prioritize social issues based on their salience to business operations and their importance to the company's competitive context. Even fewer have unified their philanthropy with the management of their CSR efforts, much less sought to embed a social dimension into their core value proposition." (Porter et al. 2006: 13f.)

Jasch (2007) underpins this thesis with results from their survey that most companies had no strategies for sponsoring and philanthropy. That prohibited any evaluation of their effects. Both Jasch and Porter et al. consequently suggest a strategic view of CSR with the latter emphasising the choice of an adequate focus to create shared value for both company and society instead of taking fragmented action.

We strongly believe this to be the right approach in designing CSR strategies as it is aligned with the European Commission's definition, emphasises an analytic decision and evaluation process and takes into account that a "one-size-fits-all" solution does not exist. Instead, as van Marrewijk points out, various CSR actions "can be structured into coherent institutional frameworks supporting a specific ambition" (van Marrewijk 2003: 103). Thus, we argue that a company should carefully choose among viable options considering which actions maximise the shared value within the company's competitive context. Like Loew et al. (2010) put forward, we think that CSR cannot replace successfully completed traditional management tasks, but instead that it is rather the responsible way of doing governance. If done well, it is less of an admirable ethical commitment and much more just good business.

2.2 Introducing the Best Practice Matrix

On the following pages, we offer an overview of such viable options as elements to develop a CSR strategy. It is important not to misinterpret these items as designated or necessarily recommended actions. Instead, we have selected 31 common CSR objectives that we regard as possible starting points in designing and developing CSR activities appropriate to a business' specific aims.

Consequently, a wide range of concrete projects can be derived from each objective. We would like to emphasise once more that we believe it to be essential that all ideas are incorporated into a framework to measure impact and performance.

However, by no means do we suppose to offer an exhaustive or complete picture but rather a sufficient overview which addresses major and minor companies worldwide to the same extent. We want to show that CSR is relevant for a variety of companies in numerous preconditions and thereby reveal a multitude of opportunities for companies to give rise to socially- and environment-friendly solutions. The objectives have been selected considering which are best practice from various actual CSR or sustainability reports of major companies, literature offering an overview of best practice measures and information on projects with small and medium-sized companies (SMEs) publicly funded by the European Social Fund for Germany (ESF). The sources offer a wide range of information on what taking action in CSR can mean and therefore provide a sufficient overall picture. The selected objectives can thus reasonably be called as common and best practice.

The 31 objectives are grouped into four categories: Employment/Work Environment, Environment, Organisation and Customers & Community. For each objective, we listed in detail the affected stakeholders (e.g. employees, community or suppliers), potential requirements or recommendations for a particular procedure as well as possible conflicts of interests.

2.3 Best Practice Matrix

TABLE 1: BEST PRACTICE MATRIX 1 – EMPLOYMENT/WORK ENVIRONMENT (SOURCE: OWN ILLUSTRATION)

NAME	OBJECTIVE	AFFECTED STAKEHOLDER	REQUIREMENTS/ PARTICULAR PROCEDURE	POSSIBLE CONFLICTS
SECURITY OF OLDER EMPLOYEES	Enabling employees to have consistent life-planning, strengthening bonds to experienced employyes	Employees (especially at the end of their careers	Far-sighted selection in employment process	Hiring of young employees decreases; Healthcare expenditures increase; Advanced careers go along with higher wages
PREVENTING HARASSMENT AND DISCRIMINATION	Ensuring a peaceful work atmosphere and preventing conflicts inside the company	Employees	Well-organised investigation system to detect cases immediately	Funding for investigating and penalising cases of harassment and discrimination
INCLUSION OF DISABLED EMPLOYEES	Ensuring best possible outcome; enhancing workforce and potential of disabled employees	Employees (disabled)	Providing barrier-free workplace; finding customised solutions for employees with special needs	Cost for special constructions versus financial value for company; conflicts among employees
FAMILY SUPPORT	Assisting employees to raise a family, holding employees during their parental time	Emyployees (during parental period)	Providing children facilities (daycare, on-site kindergarten); enabling childcare leave; assuring re-employment after returning from childcare leave; enabling reduced working hours	Finding subistute workforce (at least in reduced work hour periods); funding for childcare facilities
HEALTHCARE SUPPORT AND RECREATION FACILITIES	Ensuring best possible health condition for all employees; reducing financial losses due to hindered workforce; offering flexible working hours	Employees (especially those who are sensitive or who work in stressful environments)	Providing on-site healthcentre; providing on-site recreation areas (gyms/ fitness facilities, parks, cafés/restaurants, sports facilities)	Funding for healthcare and sports facilities (building up partnerships with local medical and sports centres); focus on workplace character
PROMOTION OF INDIVIDUAL CAREER BUILDING	Enabling employees to achieve their full potential; enhancing the identification of employees with the company; increasing the workforce through further qualified employees	Employees	Providing qualification programs (e.g. PhD programs, exchange opportunities, part-time university course	Employees take advantage opportunities to receive further qualifications and leave afterwards; cost of qualification courses; losing workforce due to employees shifting priorities towards education programs
EXCELLENCE PROGRAMS	Promoting healthy competition among all employees; ensuring employees fulfil their entire potential	Employees	Bonus incentives depending on particular (group) achievements; annual competitions amongs departments	Costs of awarded bonuses; organisation of attractive competitions; unpleasant working atmospheres
OFFERING INTERNSHIPS ON A REGULAR BASIS	Getting to know the job market; promoting the company as an attractive workplace	University students; prospective employees	Establishing partnerships with universities (and schools) to extensively search for potential employees	Costs of enlarging the recruitment department of the company; high fluctuation of employees and frequent changes
MAINTAINING DIALOGUE BETWEEN EMPLOYEES AND MANAGEMENT	Enhancing identification of employees with the company; taking advantage of employees' general excellence	Employees, suppliers, distributers (and subsequent employees); constumers	Establishing direct communication channels with executive management, encouraging addressees by frequently approaching them; setting up complaint structures, i.e. a whistle blowing system	Costs of maintaining communication facilities; conflicts with unnoticed contributors; in case of whistle blowing: support of denunciator mentality

TABLE 2: BEST PRACTICE MATRIX 2 – ENVIRONMENT (SOURCE: OWN ILLUSTRATION)

NAME	OBJECTIVE	AFFECTED STAKEHOLDER	REQUIREMENTS/ PARTICULAR PROCEDURE	POSSIBLE CONFLICTS
BUSINESS PRINCIPLES/ CODE OF CONDUCT	Defining principles and be-habioural expectations to-wards employees and sup-pliers; shaping the identity of the company	Community, employees	Working out a document to be agreed upon by relevant decision makers with con-sent; communicating and demanding compliance from business partners; setting up mechanisms sacntioning and awarding respective be-haviour	Arising conflicts with busi-ness partners; cost of estab-lishing, communicating and implementing the code of conduct
ETHICAL EDUCATION	Promoting awareness of ethical issues among em-ployees, especially execu-tives	Employees	Establishing cooperation with external partners to de-sign and conduct ethics trai-ning (in accordance with the code of conduct); inviting external educators to hold courses	Arising conflicts due to long-er working hours; cost of set-ting up partnerships and spe-cially designed courses
INTEGRATING CSR INTO CORPORATE GOVERNANCE	Ensuring integration of CSR into the considerations of the executive management; including CSR in traditional management mechanisms to merge it with everyday busi-ness and harvest all oppor-tunities that arise from it	Employees	Establishing a CSR depart-ment with the responsibility of a director and with weight in the management's deci-sion process	Arising conflicts between CSR and traditional management structures; funding for CSR department
REFRAINING FROM AGGRESSIVE TAX-AVOIDANCE	Contributing to communal services of home region/ home country by not fighting the state's tax policy	Community	Developing and communica-ting a policy ensuring fair tax payments; cooperation with relevant NGOs within the tax regulation context to promote taxpaying among other companies	Less net profit; giving up a possible competitive advan-tage; reducing restraint of government to raise taxes
MAPPING STAKEHOLDERS	Promoting efficiency of co-operation and relations with the company's stakeholders	All stakeholders	Analysing the relationship and intertwining between the company's stakeholders and their own stakeholder	Stakeholders meight see in-quiries as an infringement in their sovereignty; cost of buil-ding up reliable information structures between the com-pany and its stakeholders
PRIORITISING STAKEHOLDERS	Strengthening bonds with important stakeholders by holding them dear	All stakeholders	Evaluation of key stakehol-ders for the forthcoming business year; alignment of the company's strategy in accordance to their main concerns	Conflicts with less important stakeholders (they may feel unappreciated)
ESTABLISHING DIALOGUE WITH STAKEHOLDERS	Avoiding conflicts with stakeholders by enabling them to have a vote/voice in the management process	Customers, business partners, authorities	Establishing communication channels with business part-ners, NGOs, authorities and customers	Cost of setting up communication channels

TABLE 3: BEST PRACTICE MATRIX 3 – ORGANISATION
(SOURCE: OWN ILLUSTRATION)

NAME	OBJECTIVE	AFFECTED STAKEHOLDER	REQUIREMENTS/ PARTICULAR PROCEDURE	POSSIBLE CONFLICTS
BUSINESS PRINCIPLES/ CODE OF CONDUCT	Defining principles and behabioural expectations towards employees and suppliers; shaping the identity of the company	Community, employees	Working out a document to be agreed upon by relevant decision makers with consent; communicating and demanding compliance from business partners; setting up mechanisms sacntioning and awarding respective behaviour	Arising conflicts with business partners; cost of establishing, communicating and implementing the code of conduct
ETHICAL EDUCATION	Promoting awareness of ethical issues among employees, especially executives	Employees	Establishing cooperation with external partners to design and conduct ethics training (in accordance with the code of conduct); inviting external educators to hold courses	Arising conflicts due to longer working hours; cost of setting up partnerships and specially designed courses
INTEGRATING CSR INTO CORPORATE GOVERNANCE	Ensuring integration of CSR into the considerations of the executive management; including CSR in traditional management mechanisms to merge it with everyday business and harvest all opportunities that arise from it	Employees	Establishing a CSR department with the responsibility of a director and with weight in the management's decision process	Arising conflicts between CSR and traditional management structures; funding for CSR department
REFRAINING FROM AGGRESSIVE TAX-AVOIDANCE	Contributing to communal services of home region/ home country by not fighting the state's tax policy	Community	Developing and communicating a policy ensuring fair tax payments; cooperation with relevant NGOs within the tax regulation context to promote taxpaying among other companies	Less net profit; giving up a possible competitive advantage; reducing restraint of government to raise taxes
MAPPING STAKEHOLDERS	Promoting efficiency of cooperation and relations with the company's stakeholders	All stakeholders	Analysing the relationship and intertwining between the company's stakeholders and their own stakeholder	Stakeholders meight see inquiries as an infringement in their sovereignty; cost of building up reliable information structures between the company and its stakeholders
PRIORITISING STAKEHOLDERS	Strengthening bonds with important stakeholders by holding them dear	All stakeholders	Evaluation of key stakeholders for the forthcoming business year; alignment of the company's strategy in accordance to their main concerns	Conflicts with less important stakeholders (they may feel unappreciated)
ESTABLISHING DIALOGUE WITH STAKEHOLDERS	Avoiding conflicts with stakeholders by enabling them to have a vote/voice in the management process	Customers, business partners, authorities	Establishing communication channels with business partners, NGOs, authorities and customers	Cost of setting up communication channels

TABLE 4: BEST PRACTICE MATRIX 4 – CUSTOMER & COMMUNITY (SOURCE: OWN ILLUSTRATION)

NAME	OBJECTIVE	AFFECTED STAKEHOLDER	REQUIREMENTS/ PARTICULAR PROCEDURE	POSSIBLE CONFLICTS
COMMUNICATING CSR EFFORTS	Taking credit from CSR beyond its intrinsic values; promoting the general image of CSR	Customers, community	Extensive CSR communication through promotion of products and special PR campaigns;	Danger of being suspicous to green-washing; cost of PR efforts
AFFORDABLE PRICES FOR SPECIAL GROUPS OF CUSTOMERS	Enabling customers from special groups or backgrounds to afford the company's products	Customers, distributors	Setting up product lines or offering discounts especially for groups with low budget, i.e. university students, NGOs, the poor	Cost of adjusting not necessarily profitable product lines to specific needs of particular customers
SUSTAINABLE BUSINESS ANGEL INITIATIVE	Promoting the idea of CSR with entrepreneurs from the beginning	Community	Establishing awards and financial as well as personal support for entrepreneurs through Business Angels or executives	Helping to build up potential rivals; cost of awards and support
DONATING TO THE COMMUNITY	Strengthening bonds to community; ensuring adequate reuse of (decomissioned) facilities	Community	Allowing people from the community to use company's facilities; donating material that is not in use anymore	Facilities are more frequented by community than by own employees (too much success with intiative)
ENSURING ACCESSABILITY TO GOODS AND SERVICES	Enabling customers regardless of their personal situation (i.e. disability, poor infrastructure) to do business with the company	Customers, distributors	Designing a concept of how to serve customers of different backgrounds best; setting up appropriate ways of interaction	Cost of maintaining not very profitable branches and regions

3. *Appropriate CSR Strategies for the Telecommunication Industry*

3.1 Introduction

After having given rise to definitions and discussions, reasons for pursuing a dedicated CSR strategy and outlining common objectives as starting points for developing such a strategy, in the following, we craft an industry-specific recommendation of how an appropriate CSR strategy can look and which objectives it has to consider. For this purpose, we focus on the telecommunication industry as a primary example for a branch which is fundamental to how we live today. With the establishment of the telephone and mobile phone, and much more recently the evolution of the smartphone and mobile Internet, our communication has greatly changed within the last decades and years. Today we are used to being able to communicate with each other instantly and independently from our location for both personal and professional reasons. This would not be possible without the services the telecommunication industry provides. Thus, our today's way of living highly depends on the industry, which makes it a very interesting branch to look at from the perspective of CSR.

First, we identify and point out industry-specific issues and developments that have an influence on everyday business since CSR is highly dependent on routine practices. Then we briefly discuss the need for a global versus a national strategy and close with a general recommendation which CSR objectives we believe are crucial for the telecommunication branch in particular.

3.2 Industry-specific Issues and Developments

The telecommunication industry as a whole was subject to great changes during the last few decades. As a branch that used to be mostly monopolised ten to twenty years ago, the liberal market system came to the companies as a fundamental reform of their everyday business. Government agencies had to be established to ensure sufficient competition in the market, and formerly state-owned companies had to take action to defend their position as the market's leading company. The subsequent mergers between major players gave the whole industry an alignment with which it took up its place within the globalised business world, as it is known today.

While these developments are not the most influential factors for the current market situation anymore, the on-going evolution in how people want to use telecommunications services and the hardware linked to the industry took a major step forward in recent years. Though the conventional usage of telecommunications based on voice transmission still accounts for the major part in companies' revenues, the traditional telephone call has become less important. The relevance of text, image and audio-visual transmission has increased as research and investments are more and more focused on multimedia services and the required infrastructure for fast and mobile Internet access (cf. investopedia.com 2009). The widespread implementation of high-speed Internet access and broadband technologies such as Digital Subscriber Line (DSL) have marked a new era in the consumption of telecommunication services throughout the world. This line of action is accelerated by the escalated importance of mobile telecommunication devices. They enable customers to communicate and interact with each other at almost any time. This marks a major challenge for companies in providing their services reliably.

An important aspect of this particular development is the rising significance of privacy issues. These are brought forward not only by concerned consumer-protection organisations or related governmental agencies worrying about the abuse of customers' data. More and more regions notice a considerable number of customers who are reasonably bothered by implications that arise from providing data to the relevant companies. Also, judging from its prominence in media in the recent years with social media privacy issues and data leakages as frequently-discussed topics, one can reasonably assume that awareness of privacy and data protection has indeed increased. The fact that customers expect a misuse of their data and therefore partly refuse to provide their personal information should have an impact on the entire industry's way of thinking. It affects the way people perceive telecommunications companies in general. Against the background that collecting, storing and transferring data has become cheaper and easier with the increasing number of transactions carried out (cf. Noam 1995), it is in the companies' interest to proceed further. The customer's trust in data protection is crucial. Yet, telecommunications companies must increasingly fight data theft. Preventing leakage also becomes more complicated as the number of communication carriers and service providers grows.

As it is the case in many other industries, the telecommunication industry faces a multi-segment market. Companies in this field have to serve residential customers, small businesses and corporate companies simultaneously. These different market segments diverge in profitability, strength and number of competitors and customer demands. Similar to other industries, major companies benefit from their brand strength and their coverage of all market segments while minor players concentrate on only one or two. This results in the need for different strategies depending on which market is to be served. The residential market provides a challenging atmosphere. Households demand reliable service while being very price-sensitive. Private customers usually do not promise great revenue, so success here relies on the quantity and not on the quality of customers. The underlying business model is to provide a certain level of quality at a very low price (cf. economywatch.com 2010). Companies need to reduce transaction costs and build up a strong brand to bind customers. Additionally, this segment is the most crowded one. Hundreds of competitors challenge each other in a price battle.

Small businesses as customers behave in a similar way. Due to the smaller number of customers in this market segment, it is not as crowded as the residential market. In contrast to the two segments described previously, corporate customers have very distinct requirements. Multinational companies are mostly concerned with the quality and stability of their telecommunication infrastructure because their business relations and internal communication rely heavily upon it. As a consequence, they are less price-sensitive than smaller customers when it comes to extending and improving their communication systems (cf. investopedia.com 2009).

Moreover, telecommunications companies make profit by selling network connectivity to competitors whose capacities cannot keep up with their demands. This is also an opportunity e.g. for Internet Service Providers (ISPs) to outsource their infrastructure and save the related maintenance costs. Furthermore, co-operations in this area create far-reaching networks with borderless accessibility (cf. investopedia.com 2009), which has impacts on privacy issues (cf. Noam 1995) and the quality of services that can be provided.

Concluding, one could say that telecommunications companies are fighting at five borders. These are in themselves not necessarily unique to this industry, yet the perspective and characteristic form is worth considering. To begin with, the bargaining power of suppliers on the one hand and of potential buyers on the other forces executives to perform a dangerous balancing act. As the market is highly sensitive to research and emerging new technologies, suppliers of all sorts impose a threat as the whole industry depends heavily on them. This same sensitivity causes customers to demand the latest product (e.g., a smartphone), which helps justify high prices yet can harm business. But high prices are essential to keep up with innovation and improve the network standard. Another vital challenge that is closely related is competition. Telecommunications companies face rivals not only among themselves. The broad variety of products and services makes it easy to lose grip on the market situation. New entrants to the market might not have the necessary capitalisation to be a major danger. Nevertheless, in such an embattled industry, every new competitor results in an ever-so-tiny loss of market share. In addition to that, openness and the flexibility to rapidly adapt to new developments are necessary to keep up with the mentioned pace of technological change (cf. Prieto-Munoz 2012).

3.3 Global vs. National CSR Strategy

Referring to what has been said above, the structure of the telecommunication industry has changed tremendously from state-owned enterprises to privatised multinational companies fighting with small or medium-sized enterprises (with often a more national focus) for every bit of market share. Acknowledging this development is essential. It bears implications for how companies which do business across country borders have to think about their CSR strategy in terms of conceptualisation today, in particular with regard to the regulative bodies.

> "Telecommunications is an unusual industry in that it may legitimately claim to be central to almost every important area of human activity in a way that few other industry sectors are. […] [It] is essential to public order and national security. It underpins the economic development of whole societies, as well as business activities in every sector of the economy. For most people it is an important social convenience. For some – the elderly, the isolated, the disabled – it is a lifeline." (MacLean 1997: 176)

MacLean (1997) points out correctly that the proper functioning of telecommunications is a matter of public order as kind of social and economic backbone as well as an issue for national security. This valuation is also reflected in the statute of the International Telecommunication Union (ITU), the organisation responsible for the development of the international telecommunication system, which as of today brings together both 193 member states and over 600 non-governmental sector members.[4] The statute, also referred to as the ITU Constitution, begins its preamble with the phrase "[w]hile fully recognising the sovereign right of each [s]tate to regulate its telecommunication" (ITU 2011: 3) and thereby emphasises the national importance of telecommunications. While the European Union and its regulative body have made great efforts to harmonise legislature and

4 According to MacLean, since its founding in 1865, the ITU has mainly engaged in three ways "by recommending technical, operational and tariff standards; by regulating the use of the radio-frequency spectrum; and by assisting developing countries." (MacLean 1997: 176). See http://www.itu.int for more details.

regulation referring to telecommunications, in principle, it is still a subject of national interest. In terms of CSR, this would not have been so much of an issue during the pre-privatisation era since regulators and regulated industry were not separated in a clear-cut manner. Subsequently, it would have been obvious for companies that the focus of an adequate responsibility strategy had to be a national one. Yet with the globalised world of 2014 being full of multinational players that are required to abide by the laws and regulations of many countries or a union of states, the situation is different.

It imposes the question on those multinationals as to what approach to CSR strategies is reasonable to pursue. Is it the global one focusing on building a coherent framework, which is more or less applicable worldwide yet with the chance of losing grip on problems in particular countries? Or should the multinationals rather opt to design CSR strategies specifically for each country of operation and thereby possibly sacrifice the big picture? Discussing this question in exhaustive detail lies beyond the scope of this paper. We can only emphasise that the spirit of regulation is still very much driven by a dedicated national interest and thereby the expectations towards a corporate responsibility as well. Companies should be fully aware of this.

Apart from that, the decision between a coherent global strategy and dedicated national strategies is also a question of corporate organisation and brand perception. If a multinational company is rather organised or perceived as a network of strong national divisions, then pursuing dedicated national strategies probably takes the realities more into account. In contrast, if a multinational company wants to emphasise its international presence, a coherent global strategy might be more recommendable. Additionally, what also should be considered is which objectives the company wants to focus on. Many employee-related objectives are better served in a dedicated national strategy which is able to take local conditions more into account, whereas incorporating CSR into corporate governance or developing business principles should be more elements of a global strategy. We thus conclude that the decision global versus national is a very strategic one. It should be made in agreement with the entire executive management.

3.4 Recommendation for Core Elements of a CSR Strategy

In the following, we work out a recommendation for core elements that we believe to be necessary for CSR strategies in the telecommunications branch – all in line with the European Commission's

CSR definition from 2011 that states that the responsibility of companies should be directed by their impact on society. The European Commission further states:

> "To fully meet their corporate social responsibility, enterprises should have in place a process to integrate social, environmental, ethical, human rights and consumer concerns into their business operations and core strategy […] with the aim of maximising the creation of shared value for their owners/shareholders and for their other stakeholders and society at large [and] identifying, preventing and mitigating their possible adverse impacts." (European Commission 2011: 6).

Runhaar et al. (2008) provide a good overview of the main issues of the telecommunication industry against the backdrop of the principles of the United Nations' initiative Global Compact. The Global Compact is a "strategic policy initiative for businesses that are committed to aligning their operations and strategies" to the ten advocated principles in the areas of anti-corruption, environment, human rights and labour (cf. UNGC 2014). Summarising the results of Runhaar et al., it is evident that the most adversely affected stakeholders from the operation of telecommunication companies are the community, customers, suppliers and the environment. Among other things, they note the following as adverse effects (Runhaar et al. 2008: 484):

- Uneven access to telecommunications services,
- The use of conflict minerals with implications for human rights and the environment,
- Energy consumption and emissions,
- Consumer privacy and data protection, and
- Waste due to short product life cycles.

This mostly corresponds to our considerations of the industry-specific issues and previous developments and gives us insights as to what the core elements of a CSR strategy in this branch have to tackle.

Referring back to MacLean (1997), telecommunications is essential to public order and national security. Secondly, our today's way of living in a globalised world would no longer be possible without the appropriate infrastructure and all the service providers offering us access to telecommunications via their products. Everyone who has no or limited access to telecommunication services is highly disadvantaged, and uneven access has not only adverse effects on the individual but also on the society as a whole. Therefore, we argue that 'Ensuring Accessibility to Goods and Services' should be a core element for every CSR strategy. This is strongly connected with 'Affordable Prices for Special Groups of Customers', which is a reasonable objective in many ways. Offering special prices to current low-budget customers with the perspective of an increasing standard of living can lead to a stronger bond to the brand and can thus be seen as a long-term investment in customer relations. Beyond that aspect, affordable prices can also simply be a way to ensure accessibility.

As noted earlier, a characteristic of the telecommunications market is fierce competition and the fight for every bit of market share. It also reflects an industry that is highly dependent on the availability of special minerals and one able to sell their final goods across the world, thus with a solid logistics system. Additionally, the relevant production processes are very energy consuming. Hence, the industry has to deal with high levels of energy consumption and emissions for both production and distribution. The environment is an important stakeholder affected and in the light of the European CSR definition, companies should take responsibility for the adverse impact caused by their business. Consequently, we claim that the objectives 'Development of Environment-Friendly Production Processes' and 'Energy-Saving Logistics Solutions' have to be core elements. Fortunately, pursuing those objectives often has the positive side effect to reduce energy costs, which results in better competitiveness. It is thus also reasonable to think of actions serving these objectives in terms of improving a company's position in comparison to its competitors.

Both of these objectives require very active cooperation between the company and its suppliers. Today's perception is that companies are not only responsible for their own operations but also in part for their suppliers. The expectations formulated by the public have increased significantly (see section 1.4), and reports on poor conditions at plants of companies' suppliers impose considerable reputation risks. According to Franklin, CSR strategies can be seen as a way to manage reputation risks or risks in general (cf. Franklin 2008: 4). It is in the interest of a company to reduce (reputation) risks to a bare minimum, and so companies should take advantage of the opportunities that CSR actions offer. Since many suppliers of telecommunications companies (e.g. the coltan mining businesses) are located in developing countries or conflict areas such as in Africa or Asia, issues imposing various risks often arise. These are not easy to resolve as the example with telecommunications start-up Fairphone shows, which aims at producing a smartphone built from conflict-free minerals. Yet as of today, Fairphone can only guarantee that two of over 40 minerals that a smartphone usually contains are sourced from conflict-free mines.[5] This illustrates the difficulties telecommunications companies can face when aiming to reduce their impact on society and environment through their cooperation with suppliers. We thus argue that the objectives 'Business Principles' and 'Incorporating CSR into Corporate Governance' should be core elements of every strategy related to CSR. Within these objectives, a wide range of concrete projects can follow to tackle exactly such issues. These can include an intensive screening process of potential suppliers and the monitoring of existing suppliers regarding their social and environmental performance based on a reward and sanction system. In addition, the development of a comprehensive risk management system for health, energy, environment and safety or obtaining certifications such as SA8000[6] is possible.

4. Case Study: BlackBerry

4.1 The Economic Analysis

The story of BlackBerry as a company reads as a Greek tragedy. In 1999, the first BlackBerry smartphones hit the market. Fifteen years before, Mihal Lazaridis, a student of the University of Waterloo, founded a small business that had started with the development of LED displays for General Motors in 1984. The name of this company was Research In Motion (RIM) and it was designated to occasional development work. After General Motors lost interest and withdrew from the project, RIM went on to design digital barcode-readers to take in and read film for the National Film Board. The "Digisync" was a milestone in film editing but came with the flaw of quality. As soon as all Hollywood studios were equipped, the market was saturated (cf. Tsai 2014). At that time, RIM turned to e-mail service with the idea of making it accessible with portable devices. Following products called "Bullfrog" and "Leapfrog" (Tsai 2014), finally the first BlackBerry phone was ready for sale in 1998. This device, mainly appreciated by businesses and companies for its "rock-solid reliability and ironclad security", lifted RIM into being Canada's flagship technology

5 A Fairphone (product name and company name are the same) contains tin and tantalum certified conflict-free by the Conflict Free Tin Initiative (CTFI), see http://solutions-network.org/site-cfti for more details.

6 The SA8000 standard is a framework to measure social performance in regard to basic human rights of workers. See http://www.sa-intl.org/index.cfm?fuseaction=Page.ViewPage&PageID=937 for more details.

company with a stock well above $200 at its best times (cf. Tsai 2014). Even the 2009 stock price of $150 (cf. Russell 2012) seems out of touch for the current price just over $10.[7]

BlackBerry's situation began to turn with the development of touch devices, most prominently by the introduction of Apple's iPhone in 2007. Lazaridis and other RIM executives simply denied the relevance of touch devices to the market. Such a "plaything" (Tsai 2014) was considered to have nothing to do with a serious email device and "won't threaten BlackBerry" (Russell 2012). This attitude led RIM to miss the crucial market developments of the twenty-first century. When BlackBerry finally introduced its first touch device a year after the iPhone, it was already too late. Customers no longer demanded reliable and secure email devices only but rather a universal life assistant. While BlackBerry failed to close the gap, Apple already began to beat BlackBerry on its home territory by setting up the iPhone as a reliable business device (Tsai 2014).

Seemingly every other company except RIM recognised that competition would come to the smartphone market, but unfortunately, RIM responded to that by ignoring the signs. The company became a victim of its own success. Preceding Apple's iPhone, every other company that was meant to be the "BlackBerry Killer", amongst them well-known ones like Nokia and Motorola, failed spectacularly (cf. Castaldo 2012). Concentrating on its core business, supplying companies with efficient mobile mailing devices, BlackBerry isolated itself from important market developments and its customers. It clung to the conviction of selling hardware and software in one piece by one provider. In contrast to that, smartphones had begun to settle in ecosystems that were tailored to allow the development and usage of third-party applications. Also, companies like Apple and Samsung owe their success to hardware partnerships and a broad spectrum of products (cf. Hartley 2013). Attempting to keep up with these developments, BlackBerry took one desperate step after the other. First, by introducing Q10 and Z10, new smartphones running on the new QNX platform, RIM tried to implement smartphones without having the necessary ecosystem of applications which was the foundation of their rivals', Apple and Android, success in the first place. Not only that, the start of sales was delayed several times before one smartphone was actually delivered (cf. Castaldo 2012). Then, BlackBerry, RIM's official name since 2013, started the "Playbook" experiment. According to Hartley, it was "a desperate attempt to play catch up that amounted to a product that was incomplete, too little and too late" (Hartley 2013). Adding up to complete market failure, BlackBerry faced a complete crash of its systems. In October 2011, the

7 From June 30, 2014 to August 1, 2014 the stock price for BlackBerry Ltd. (BB, listed on the stock exchange in Toronto, Canada) fluctuated between $10.94 and $10.15. See http://quotes.wsj.com/CA/BB for more details.

company lost its email and instant messaging service across Europe, Middle East, Africa, India, Brazil, Chile and Argentina for several days (cf. Russell 2012).

Despite all of these struggles, BlackBerry is still a company operating worldwide. Alongside the mentioned smartphone lines, BlackBerry contends for a placement on the market with the attempt to establish the company's own messaging platform BlackBerry Messenger (BBM). With the comparison of BBM to the iPhone's iOS, Apple's operating system, and Google's Android, the company has tried to establish its smartphones as being capable of more than "just" business (Dingman 2014). The focus of this messaging application lies on the security of the transferred data. Additionally, it has one of the best penetrations into the corporate world (cf. Russell 2012) so it follows BlackBerry's original values and strengths. Since BBM is actually a growing platform, it could well help the company overcome the economic crisis it finds itself in. Another new product with which BlackBerry tries to find a way to recover is the Passport. It is a new smartphone that shows how desperately BlackBerry is trying to create a niche for itself on the smartphone market. By concentrating on providing a user-oriented and secure mobile workplace, the company is again referring back to the core values and strengths which built up the brand in first place (Shea 2014). BlackBerry claims that the square-shaped display provides a better reading experience than other rectangle-shaped smartphones (cf. Meusers 2014).

4.2 BlackBerry's CSR Performance

Having outlined BlackBerry's economic development over the last years up to the current situation the company is in, we turn to the company's positioning concerning CSR using a few points as a representation of the company's CSR behaviour.

Firstly, BlackBerry's dubious handling of stakeholders eroded the company from the inside. Although shareholders are considered to be the most obvious and opportunistic group of stakeholders, they still remain stakeholders. In spite of spending well over 60% of the current company worth on shareholders (cf. Norris 2013), the company failed to reward the most loyal ones. This went along with a focus on short-term value only benefitting shareholders who sold their shares of the company (cf. Chandler 2013). Another and more relevant issue for CSR at BlackBerry is the latest "Green Electronics Ranking" published by Greenpeace. The company missed the chance to distinguish itself from rivals on the market and again ranked last with only two of ten possible points (cf. Greenpeace 2012). The ranking lists 15 top electronic companies by their environmental policies and the impact of their products (cf. Gersman 2011). According to Greenpeace, BlackBerry, then still named RIM, was very much lacking a plan to reduce its impact on the environment. Nevertheless, the company was able to improve in the operational section as being one of the better scorers in terms of low use of conflicts minerals (cf. Greenpeace 2012). The Corporate Social Responsibility Report from 2012 is not a statement of success, either, as it mainly consists of very general propositions about goals and aims. The reader has to search desperately for hard facts that relate to actual CSR activities. A listing of how employees plant trees is not in any way related to the everyday business of a telecommunications company. CC is important, yet it does not influence or promote the core business and therefore has to find a dedicated place somewhere else.

A more positive point we want to take into consideration is BlackBerry's partnership with Mercedes AMG Petronas Formula One Team (cf. BerryReview Team 2013). Providing the team with communication systems and network services promotes the public image of BlackBerry's reliability and professionalism. Additionally, by equipping the drivers Lewis Hamilton and Nico Rosberg, BlackBerry is provided with the opportunity to enhance its popularity showing what BlackBerry devices actually look like being used.

Taking into account these major points of BlackBerry's CSR, it is plain to see that there is much room for improvement. In the following, we use BlackBerry as an example of a telecommunications company. A few ideas will be given to show a possible approach to shape its CSR strategy. We thereby refer to the general recommendation developed in chapter four which relies on the compilation of chapter three. Obviously, we do not aim to provide a brand new and comprehensive CSR strategy for Blackberry since this would not go along with the scope of this paper. Nevertheless, we do provide what we believe to be key issues for BlackBerry as a company. Even in its critical business situation, these few ideas could help BlackBerry create a solid strategy for CSR matters.

4.3 Recommendations for Core Elements of a CSR Strategy at BlackBerry

For different reasons, an appropriate Code of Conduct is a major pillar for every CSR strategy. By shaping one's identity, many processes can be carried out far more efficient. This may seem trivial and obvious but being uncertain at every step of a decision-making process causes a massive amount of transaction costs and leads to confusion on every hierarchical level of the company. Setting a binding code and formulating strict business principles, moreover, improves the standing of the company in its interaction with business partners. It helps to establish and enforce relations with partners because by providing a conclusive profile, one enhances security on both sides and avoids misunderstandings. The benefits of having a clear image of one's identity are not limited to one particular part of the company. Additionally, setting up business principles does not result in exceptional costs, which makes it even more attractive to businesses in general.

Especially for telecommunications companies, it is difficult to trace the imported resources back. But the fact that it is almost impossible to gather reliable information on the origin of raw material is no reason to not even pursue that aim. Many of the resources needed in the telecommunications industry are to be found in areas of the world with unstable political situations and failed states. Often, the supply chain ends with a state-owned company in an African country that is not only inscrutable but also corrupt. Since this is the only way for most companies to buy the required resources at a reasonable price, this has become a common way of ensuring supply. We have mentioned the example of Fairphone. Although this company is by far not operating independently from uncertain sources, it takes on the challenge. Doing so can be a vital advantage and a way to define a differentiation to rivals.

Another point that could well promote BlackBerry's strategy in the near future is associated with product accessibility. The company could devote itself to providing telecommunications services to customer groups, which usually have little or no access to such products and services. The reasons for this restriction in access may lie in affordability but could as well be a result of geographical problems. Through specially aligned prices and setting far-reaching ways to deliver telecommunications services and products to remote areas, BlackBerry could therefore raise its CSR efforts and generate additional profit at the same time. Obviously, this again would come with a considerable business advantage over rivals.

5. Conclusion

In a nutshell, we presented three major lines of arguments in this paper. First, after having examined the idea of CSR in the current academic and economic environment, we argued that there are strong reasons for companies to pursue a CSR strategy today – even if it does not seem to pay off financially in the first place. Second, built upon our comprehension of CSR, we developed a collection of over 30 common CSR objectives compiled in a descriptive matrix, which we argue to be a reasonable starting point for companies working out their CSR strategy. The underlying idea is to gather common CSR objectives, put them into a meaningful matrix, and in revealing what is best practice today, enable companies to select appropriate elements for their individual strategy. Third, we argued that there is a necessity for an industry-specific CSR profile since every industry has to deal with characteristics needs and fulfil certain stakeholders' requirements. A CSR strategy should reflect that. We made the case for the telecommunications industry for demonstration purposes and elaborated on a recommendation based on our best practice matrix. Eventually, we compared our recommendation to a major company in this industry, BlackBerry, to analyse similarities and differences.

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