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WHAT IS “STAKEHOLDER VALUE”?

*Developing a catchphrase
into a benchmarking tool*



FRANK FIGGE / STEFAN SCHALTEGGER – JUNE 2000

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FOREWORD

The United Nations Environment Programme (UNEP) welcomes this research to develop a methodology for measuring stakeholder value. We believe that measuring stakeholder value will become an increasingly important concern for business and investors in the near future.

UNEP has for many years supported the development of practical tools to assist business in effectively measuring and reporting on their progress toward sustainable development. For example, the *Engaging Stakeholders* series promotes the use of environmental reporting. The Global Reporting Initiative, in which UNEP is involved, assists companies in their benchmarking efforts.

We are intrigued by the methodology proposed herewith and believe that this study will contribute to a constructive debate on how to measure the enterprise value of stakeholder engagement. We fully recognise that many other methodologies may exist. However, we believe that such research and subsequent debate is necessary in order to advance the understanding of corporate sustainability.

It is UNEP's hope that this research generates intensive comment and feedback.

Jacqueline Aloisi de Larderel
Director
UNEP – Division of Technology, Industry and Economics

FOREWORD

Creating value for our clients by identifying value and defining investment opportunities has been at the centre of our activities for almost 200 years. Over this long period of time, the companies we invest in have seen constant change. The challenge for us was to adapt our assessment tools and techniques so that they allowed us to identify where and to understand how value is created.

There is a broad consensus that the structure of our economies is once again changing rapidly. We see that some established sectors are coming under increased pressure to restructure, while at the same time new, innovative companies are emerging. We note at the same time that a more efficient use of environmental and social resources is a prerequisite for sustainable development. This raises the question of whether our current assessment techniques will continue to be able to uncover and explain how value is created.

It is in this context that we welcome this innovative new research and we are glad to be associated with it. By linking the stakeholder concept with tools used for shareholder value calculations, the authors refer to established tools and concepts to create a new and innovative assessment technique.

Measurement is an important prerequisite for effective management and innovation is an important economic driving force. We are confident that the innovative way of measuring stakeholder value proposed within this study is an important contribution to our understanding of value-oriented management in the future – for the benefit of all stakeholders.

Ivan Pictet
Partner
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1. INTRODUCTION

The purpose of a company is to create value. Few people would contest this statement, as long it is formulated so loosely. As soon as we try to be more precise, however, conflicts arise. These mainly involve questions such as: *What sort of value* is supposed to be created *for whom*, and *how*?

This backdrop has led to the increasing popularity of the concept of *shareholder value* in recent years. The shareholder value approach attempts to determine the value of a company from the shareholders' perspective. Shareholder value can be expressed as the cash value of all the surplus funds available in future for distribution to shareholders. The shareholder value approach therefore attempts to determine how much a company is worth as far as the shareholders are concerned.

As this concept has become more popular, the discussion of the chosen perspective of this approach has also become more heated. Critics say it encourages a bias towards the company's shareholders and neglects other groups which on the one hand participate in the company's success, and on the other depend on it. These critics instead advocate not so much an *alternative valuation method*, but rather an *alternative way of looking at things*, which concentrates on those who actually create value added for the business. Their starting point for doing so is usually the *stakeholder concept*. This concept, which was actually developed before shareholder value came into vogue, is more in the domain of strategic management. It highlights the mutual dependency between companies and certain social groups. For a company to successfully achieve its business goals, its management must take these interest groups, or stakeholders, into consideration when making decisions.

In what is often a very emotional debate, shareholder value and the stakeholder concept are usually discussed as alternative approaches, but this shows a basic misunderstanding of the key characteristics of each approach. Shareholder value is a valuation method, while the stakeholder concept clearly is not. The former looks at how value is created and how value creation can be assessed, but says nothing about who creates the value added, how it is distributed, and to whom. The stakeholder concept, on the other hand, is more interested in showing that there are groups other than shareholders who are important to the company's success: it does not, however, attempt to assess the value added created by stakeholders for a company, or the benefit the company offers to stakeholders.

This is an unfortunate situation. If we assume that companies can choose between different stakeholders, and stakeholders can choose between different companies, both sides face the problem of making a decision, and therefore a valuation predicament as well. Without proper valuation, the choice of the right stakeholder or the right company is purely a matter of chance.

This study aims to explain what is understood by "stakeholder value" and how it can be measured. Chapter 2 starts by providing a summary of the most important aspects of the stakeholder concept and shareholder value approach. Chapter 3 examines the question of what can be understood by stakeholder value. Chapter 4 explains how to determine the "stakeholder value added", followed in Chapter 5 by a con-

crete example of how to calculate this. Here we look at the case study of European car manufacturers to illustrate the methods used to determine the stakeholder value added.

2. THE STAKEHOLDER CONCEPT VERSUS THE SHAREHOLDER VALUE APPROACH

In this chapter we provide a brief overview of the stakeholder concept (2.1) and shareholder value approach (2.2), which are often seen as conflicting notions, and then go on to compare the two (2.3). Chapter 3 leads on from this and examines what can actually be understood by stakeholder value.

2.1 The stakeholder concept

The stakeholder concept is an analysis tool for the strategic management of companies. It is based on the knowledge that most companies today – unlike their predecessors in the first half of this century – are no longer the private property of one or a small group of owners, but are “quasi-public” institutions (Ulrich 1977). They are a focus for the conflicting and complementary interests of different stakeholders both inside and outside the company.

As Freeman states (1984, 25), individuals or groups can be described as stakeholders if they have a material or immaterial “stake” in the business. As “stakeholders” they have a share in, or influence on, the success or failure of the company. The stake of an individual or group in a company is based mainly on the fact that they make resources available to that company. In this case there are three types of material or immaterial resources that may be involved:

- Capital resources, such as financial assets (shareholders’ equity and debt capital), tangible assets (land, buildings, etc.), human resources (labour) or natural resources (mineral ore, water, landfill space, etc.)
- Goodwill resources, such as social acceptance and a good working environment within the company
- Information and know-how

Stakeholders make resources available to the company as long as there is a profitable relationship between what they put into the company and what they get out. This interdependency is a key feature of stakeholder relationships: the fact that stakeholder groups depend on the company to achieve their business goals, and the company in turn depends on them. Only some of the relationships between stakeholders and a company are market-driven transactions. In addition to – and often in place of – transactions shaped by the market, there are many diverse political processes not just within the company itself, but also between stakeholders inside and outside the organisation.

In attempting to protect their stake, stakeholders act as interest groups both in relation to the company management and towards other stakeholders (cf. Mintzberg 1983; Pfeffer 1992). In this process, stakeholders simultaneously have both compatible interests, such as enhancing the distributable value added of the company, and conflicting interests, such as receiving a bigger portion of the distributed value added. In the latter case, the company’s management and all the other stakeholders face the task of weighing up the conflicting interests and making sure as far as possible that there is sufficient room to manoeuvre.

Conflicts may arise not just between shareholders and (top) management, as analysed in the “principal agent” approach (cf. Jensen/Meckling 1976; Eisenhardt 1989), but also between management and other stakeholders. Like management, all the other stakeholders face the challenge of having to weigh up conflicting interests against each other. In this situation the stakeholders are caught up in relationships based on interdependency – ones that are different and continuously changing over time. The task of management,¹ is to build up a suitable network of players needed to achieve the stated business goals, and to adapt this as necessary. In particular, management must identify the “critical” stakeholders and secure their contribution to the success of the company (Schaltegger/Sturm 1992). One of the main qualities of critical stakeholders is that they make resources available to the company that either cannot be substituted or would be too costly to replace. The other key aspect is that it is either impossible or too expensive to replace the critical stakeholders who currently supply these resources.

In the more recent literature on management theory, a number of more detailed analysis models and suggested methodologies have been developed for the efficient management of stakeholder relationships (cf. Dyllick 1986; *ibid* 1989; Göbel 1995; Hill/Jones 1992; Janisch 1992, Jones 1995, Schaltegger 1999, for example).

It is impossible to take the interests of stakeholders fully into account, since the theoretically unlimited number of stakes in the company weigh up against the scarcity of exchangeable goods. Since companies are societal institutions, management must as a rule address the (legitimate) claims of the stakeholders, but are inevitably obliged to reject the claims of certain groups. Since stakeholders do not tend to allow their claims to be rejected without putting up a fight, what happens in reality is the emergence of political processes, and in particular disputes about the distribution of created value added. *The strategic task of management is therefore to handle the distribution of value added in such a way that the continuing supply of resources by stakeholders – and especially the critical stakeholders – is secured as economically as possible over the long term.*

2.2 The shareholder value approach

The shareholder value approach is a method for valuing companies from the perspective of shareholders (cf. Rappaport 1995, Copeland et al. 1993). Its methodology has its origins in capital budgeting techniques, and it attempts to determine the market value of the shareholders’ equity in the business. In this process, the company’s future free cash flows that will probably be used to satisfy commitments towards shareholders are discounted at a given point in time. Unlike free cash flows, profit, for example, does not take into account the fact that some of the earnings may have to be used for internal financing of investments in some cases, thereby reducing the amount left over for distribution to shareholders.

The discount rate applied is the market rate of interest on the capital, assuming a comparable risk. This discount rate can be interpreted as the capital opportunity cost. Shareholder value is therefore simply the

current value of the company's future free cash flows taking into account the risk premium paid by the market for a comparable risk.

A company's shareholder value can be calculated as follows:²

$$\text{Shareholder value} = \sum_{n=1}^{n=\infty} FCF_n \cdot \frac{1}{(1+i)^n} - DC$$

where, FCF=Free Cash Flow, n=period
i=discount rate (WACC), DC=debt capital

One strength of the shareholder value approach is that the increase in the enterprise value can be explained by a limited number of value drivers (see also). These include:

- Fixed capital investments
- Working capital investments
- Sales growth
- Operating profit margin
- Income tax rate
- Value growth duration
- Cost of capital

The first six value drivers influence the operating cash flow (). They determine the size of the net cash inflows after all the costs (apart from capital costs) have been taken into consideration. The last value driver – the cost of equity – determines the discount rate. The discount rate depends on the risk, and therefore reflects the riskiness of the cash flows produced through the six other value drivers.

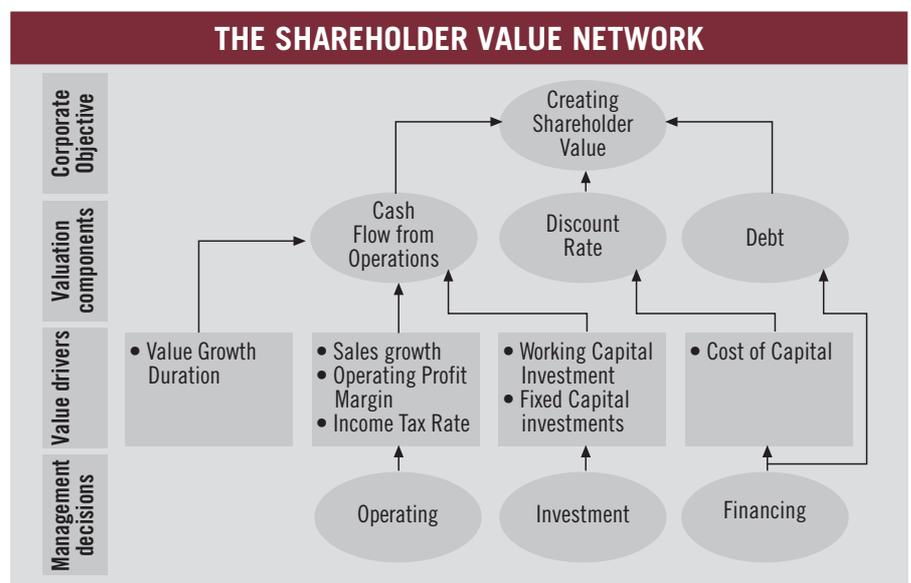


Figure 1: The shareholder value network (according to Rappaport 1995)

If one analyses the impact of planned measures on these value drivers, it is possible to determine their influence on shareholder value (for environmental shareholder value, see Schaltegger/Figge 1998).

2.3 A contradiction?

The comparison of the shareholder value approach and the stakeholder concept in the last chapter shows that there are differences between them (see also Speckbacher 1997). Another point that comes to light, however, is that the concepts by no means fundamentally contradict each other. compares the different criteria that apply for the stakeholder concept and the shareholder value approach.

	STAKEHOLDER CONCEPT	SHAREHOLDER VALUE CONCEPT
Area of discipline	Strategic Management	Company financing
Rationale	Strategic company management	Company valuation
Character of the concept	Qualitative/political	Quantitative / financial
Focus primarily from the perspective of ...	Top management	Investors (shareholders)
Purpose of applying the concept	Increasing management's room to manoeuvre (satisfaction)	Enhancing the enterprise value (maximisation)
Company's objective	Continuation of business and creation of value added	Enhancing value
Orientation of resources	All resource providers	Primarily equity providers
The use of resources is intended to ...	Provide services, ensure the continuation of the company and achieve the objectives of the critical stakeholders	Maximise the risk-adjusted return on the capital employed
Whose "stakes" does the management have to take into account?	Stakeholders with scarce resources that are needed to provide a service	Shareholders (owners)
Remuneration of resource providers	All stakeholders (incl. equity providers) according to the marginal product in terms of value of their service	The remuneration of the equity provider is the residual amount, all other stakeholders are remunerated according to the marginal product in terms of value of their service
Distribution of surplus (free cash flow)	Not meaningful	Anything left over after all the resource providers have been paid belongs to the shareholders
Operationalisation	Minimal, strategic	High, operational
Complexity, interdependence of variables	High	Low

Table 1: Comparison of the stakeholder concept and shareholder value approach

While the stakeholder concept has its *origin* and *rationale* in strategic management, the shareholder value approach belongs to the realm of corporate financing and has mainly to do with the financial valuation of an enterprise. As a result, the conceptual nature of the two analytical approaches is more complementary than contradictory. The stakeholder concept, for example, has a qualitative/political orientation, while the shareholder value

approach has a quantitative/financial bias. A comparison shows that the approaches do not conflict with each other either in terms of methodology, nor do they take a conflicting ideological position towards the same thing. What does become clear is that on the one hand an analysis is performed from the *perspective* of (top) management (stakeholder approach) while on the other is it made from the perspective of the owners or investors (shareholders). The purpose of applying the concept is therefore in the first case to increase management's room for manoeuvre in order to improve the company's performance, and in the second case to enhance enterprise value. Although these two goals may occasionally conflict with one another, they can also be compatible. The management can only enhance enterprise value, for example, if it has enough room to manoeuvre against the competition, authorities, pressure groups, etc. which it requires for product innovation, penetration of new markets, etc.

The comparison of the two concepts also shows that different yet symbiotic *business objectives* (continuation of the company versus enhancement of enterprise value) can be illuminated from the viewpoint of different business management disciplines.

There is also a different *viewing spectrum* underlying the analysis in each case. Whereas with the stakeholder approach all resource providers are viewed almost "through the same lens" in any comparison, the shareholder value concept chiefly takes the viewpoint of equity providers as recipients of the residual amount of the value added after all the other stakeholders have been remunerated for their services. The key thing here is that neither concept excludes certain stakeholders out of hand. It is merely the viewing angle that is different. The difference in the answer to the question as to what *stakes* the management has to take into consideration can be found in the assumption made in the shareholder value approach that all resource providers are remunerated for their services at the going market rate and the residual part of the value added belongs to the shareholders. The stakeholder concept starts one stage earlier in the process of distributing value added: it assumes that priority consideration must be given to the interests of those stakeholders who only have scarce resources which the company urgently needs to perform its service. This too implies that resource providers are remunerated on the basis of the value they create for the company by procuring a business resource (known as the "marginal product in terms of value"). At the same time the equity providers are by definition only treated differently from other stakeholders if their resource is particularly scarce.

The stakeholder concept does not, by virtue of its qualitative *character*, have such a strong operational focus as the shareholder value approach, which primarily has a financial orientation. The quantitative calculation of shareholder value inevitably requires a less complicated analysis. This has the advantage that a clear target function can be formulated to enhance or maximise enterprise value. Since the stakeholder approach takes many different stakeholder groups into consideration, emphasises the enhancement of the company's value added and does not make any assumptions about the distribution of profits, the objective of strategic management is to *satisfy* the claims of the

resource providers. The safeguarding of resource supply through strategic management of stakeholder relations is also designed to ensure the continuation of the business, while the shareholder value approach goes one step further in trying to solve the question of how the risk-adjusted return on capital employed can be maximised, assuming that resource providers are remunerated at the going market rate.

To summarise, the comparison shows that the shareholder value approach and the stakeholder concept adopts two different viewpoints for analysing central aspects of business management. Although these perspectives are different, they are not in principle contradictory, but rather complement each other in a number of ways:

- *Operationalisation of the stakeholder approach and stakeholder value:* In its traditional format, the stakeholder concept highlights the importance of different stakeholders, but fails to show how to value their contribution to the success of the business. In this context it should be noted that a shareholder approach with an operational bearing complements the strategically oriented stakeholder concept. This is particularly so because the benefit of the practical application of the stakeholder concept for company management could be enhanced by greater operationalisation or through a measurement of stakeholder value. Here the operational approach might be helpful in determining the shareholder value.
- *Shareholder value through the management of stakeholder relations:* The shareholder value approach is a concept for valuing a business from the perspective of equity providers. It does not say anything about the actual relationship between the company and its stakeholders. Company management may seek greater operationalisation of the stakeholder concept in order to manage stakeholder relations and thereby enhance shareholder value. The stakeholder approach emphasises the fact that companies depend on various groups that supply resources to the company. Companies need to include these resource providers in their decisions if they are to successfully enhance enterprise value. Only when the enterprise value that each stakeholder creates for the company can be measured, is it possible to have efficient and financially viable management of stakeholder relations in order to enhance shareholder value.

The starting points of each approach highlight the importance of measuring stakeholder value and managing stakeholder relations. In the next chapter we discuss what can be understood by stakeholder value and how it can be measured.

3. WHAT CAN BE UNDERSTOOD BY STAKEHOLDER VALUE?

The term “stakeholder value” is already in common usage. A database search for press articles containing the keyword “stakeholder value” reveals that this term is almost exclusively used as an unexplained catchphrase.³ Nor is there any clear definition in the academic literature (for a current example see, for example, Earl/Clift 1999). The importance of stakeholder value as a measurement tool has apparently not yet been explained. This chapter shows what can be understood exactly by the term “stakeholder value” (3.1), how these terms can be interpreted (3.2) and why we need to measure stakeholder value (3.3).

3.1 Enterprise-oriented stakeholder value or stakeholder-oriented enterprise value?

The term “stakeholder value” is often used in practice as the opposite of shareholder value. Contrary to what one might initially expect, however, a direct comparison does not produce a clear definition of stakeholder value.

The prerequisite of every valuation is that the *valuation object* and the *valuation perspective* must be known. The valuation object defines *what* is being valued, while the valuation perspective defines *for whom, or for what use* the valuation is being made.

The shareholder value approach values companies (valuation object) from the perspective of (potential) equity providers assuming the continuation of the business (valuation perspective). An investor who would like to wind up the business being valued, for example, would not choose a cash-oriented valuation method such as shareholder value, but one based on net asset value, in order to determine the company’s break-up value. The worth of a valuation object and the method used to value it therefore depends on the perspective chosen. However, the term “stakeholder value” does not immediately help to clarify the valuation object or the valuation perspective.

In this context a distinction can be drawn between two possible perspectives (see also):

- *Stakeholder-oriented enterprise valuation*

Stakeholder value can be interpreted as the value of the company from the stakeholder’s viewpoint. Here the company is the valuation object and the selected perspective is that of the stakeholder in question. The fundamental question is, for example: How much is the business worth from the perspective of the employees, assuming that the relationship is continued? The shareholder value approach is therefore a special case in stakeholder-oriented enterprise valuation. It determines the *value on continuation* of the business, from the perspective of the stakeholder “equity provider”.

- *Enterprise-oriented stakeholder valuation*

But stakeholder value can also be understood as an enterprise-oriented stakeholder valuation. With this perspective, stakeholders become the valuation object, while the company or the management dictate the val-

uation perspective. The task is therefore to determine the value contributed by a specific stakeholder from the company’s viewpoint. The value created by a stakeholder for the company is measured by his contribution towards helping the company meet its business goals or enhancing its enterprise value.

If “stakeholder value” is to be understood as being the same as “shareholder value”, stakeholder value would need to be interpreted as stakeholder-oriented enterprise valuation.⁴ The literature cited shows, however, that authors who argue for an “enhancement of stakeholder value” usually stress the value of the stakeholders for the company. If such a valuation is to be performed, it is an enterprise-oriented stakeholder valuation.

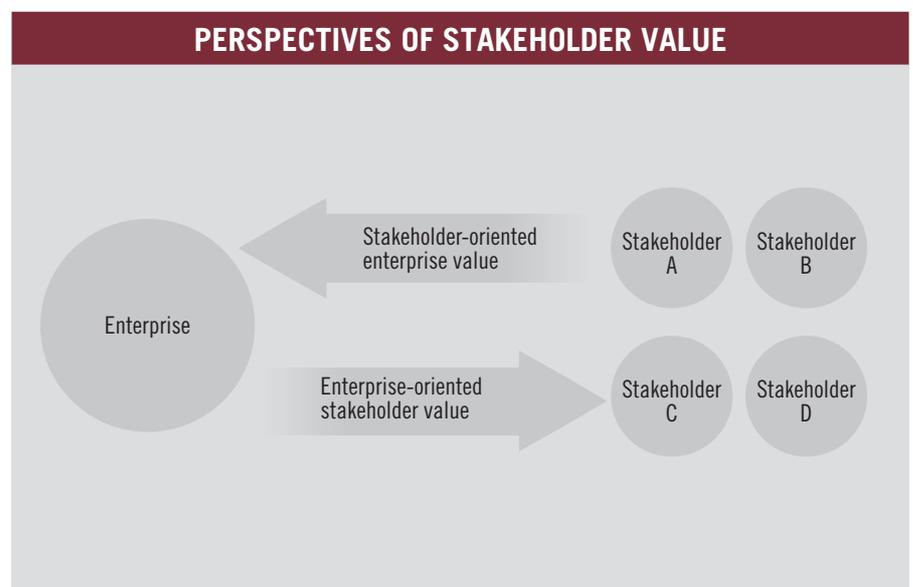


Figure 2: Perspectives of stakeholder value

The logical continuation of this argument, plus the fact that companies per se are unable to act or value, which means we are in each case dealing with the actions and valuations of stakeholders (management, employees, etc.), makes it clear that only “stakeholder-oriented stakeholder valuations” exist. This is why a transparent analysis of the valuation object and the valuation perspective are essential. As with all valuations, a change of valuation perspective usually produces different valuation results. Part of the conflict between the supporters of the shareholder value approach and the defenders of the stakeholder concept may well lie, therefore, in the different underlying valuation perspectives and their lack of transparency.

3.2 Interpretation of the perspectives

A voluntary exchange of resources between stakeholders and the company will only occur if the benefit looks greater than the cost for both sides. Benefit and cost cover both material and immaterial assets in this case. From the company’s viewpoint, the benefit of the resources provided by the stakeholder must be greater than the costs incurred to use them. From the stakeholder’s viewpoint, the benefit the company pro-

duces for the stakeholder must be greater than the cost of supplying the resources. *In other words, both sides must, from their own perspective, see value added being created.*

If we assume decreasing marginal utility and increasing marginal cost for the use or provision of resources, we can expect both parties to agree to an exchange, as long as the marginal utility exceeds the marginal cost (Figure 3). The maximum price (P) that a company will agree to pay for the service provided by the stakeholder is therefore one that is equal to the marginal utility (MU) of the resources ($P \leq MU$).⁵

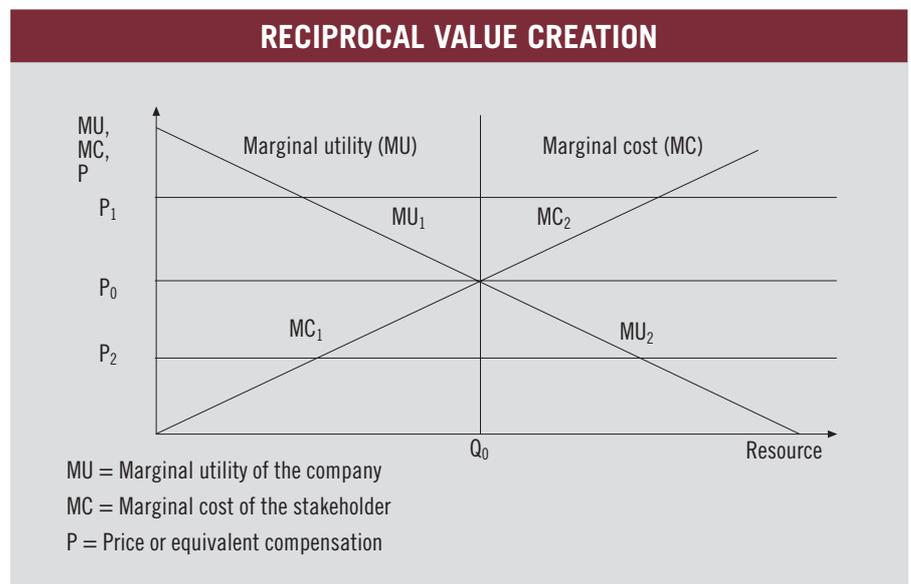


Figure 3: Exchange of services between stakeholders and company

On the other hand, a stakeholder will demand a compensation that is at least equivalent to his marginal cost ($P \geq MC$). A balance is reached if the marginal utility is equal to the payment made by the company, and this payment equals the marginal cost of the stakeholder (at P₀ and Q₀). The price can then be interpreted as the market price if it corresponds to the usual consideration paid for a specific type of stakeholder service or any other typical compensation.

We can assume, however, that imbalances will repeatedly occur between the requested (accepted) price and the marginal utility (marginal cost). In such cases there is pressure to reach a compromise. In this context we can distinguish between four situations:

- $MU_1 > P_0 > MC_1$: If the marginal utility exceeds the market price, and the market price is higher than the stakeholder's marginal cost, an exchange of resources not only makes economic sense: it is also in the interest of both parties that the relationship is continued and expanded.
- $MU_2 < P_0 < MC_2$: In a situation where the market price of a resource exceeds the marginal utility for the company on the one hand, but on the other is less than the stakeholder's marginal cost, the relationship between the company and the stakeholder is not attractive from either side's viewpoint. Nor is there any "room for negotiation" on either side.

- $P_1 > MU_1 > MC_1$: If, for example, the going local price exceeds the company's marginal utility on the one hand, but also the stakeholder's marginal cost on the other, the company's management will only be prepared to enter into or continue a stakeholder relationship if the compensation it makes to the stakeholder is reduced (P_0 instead of P_1). It is not in the stakeholder's interest to agree to such a reduction as long as the price exceeds the marginal cost in future as well.
- $P_2 < MU_2 < MC_2$: If the marginal utility of the resource is higher for the company than the going market rate (P_2), but this is less than the marginal costs incurred by the stakeholder (MC_2), the stakeholder will only be prepared to deliver the resource if the payment is increased (from P_2 to P_0). Since the company would only be willing to consider a price increase if the cost remains under the marginal utility, no transaction will be completed.

An analysis of the marginal utility and marginal cost helps clarify up to which point, and to what degree, an exchange is probable between the company and the stakeholder. Here we can see that both parties are interested in an exchange of resources up to the point where, from their respective viewpoints, the marginal utility is equivalent to the marginal cost. If we assume that the marginal utility exceeds the marginal cost up to this point, *both parties stand to earn a return* (Figure 4). These returns reflect the value created by the exchange between the company and the stakeholder. The sum of both these returns can be defined as *stakeholder value*. The stakeholder value comprises *the stakeholder-oriented enterprise value* (the area AP_0C) on the one hand and *the enterprise-oriented stakeholder value* (the area BP_0C) on the other.

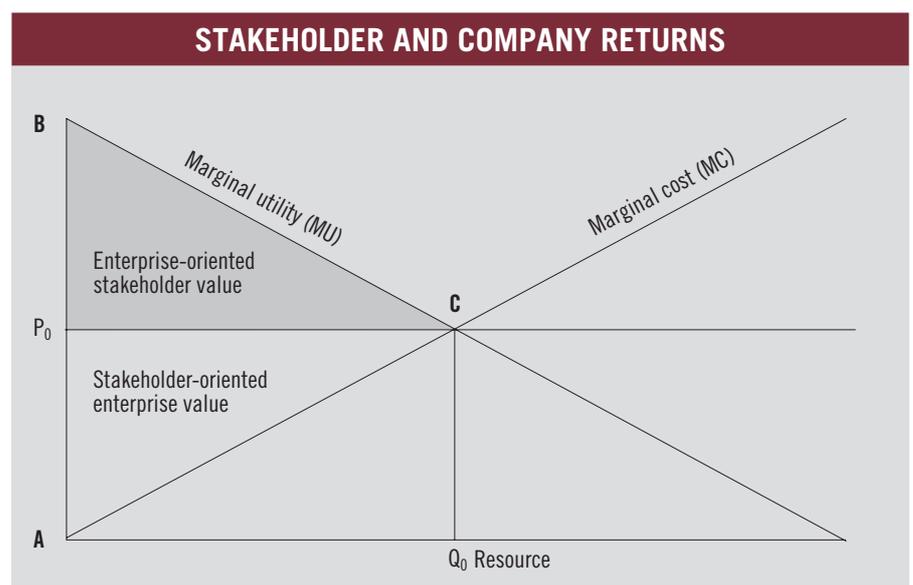


Figure 4: Stakeholder and company returns

The entire stakeholder value created from the relationship between the company management and its stakeholders therefore equals the total stakeholder-oriented enterprise value for all stakeholders and the enterprise-oriented stakeholder value for all stakeholders.

3.3 Why measure stakeholder value?

Following on from this discussion, we have to ask the question whether the measurement of stakeholder value is useful, or whether the use of this value as a qualitative benchmark is not sufficient. Basically there are four arguments in favour of measuring stakeholder value:

- *Stakeholder value is not the same as shareholder value:* In practice it is often argued that a maximisation of shareholder value is always in the interest of stakeholders (see, for example, BZ Trust 1998). In this context it should be pointed out that shareholder value measures the enterprise value solely from the perspective of equity providers. We know from valuation practice, however, that even financial investments may well have a different value depending on the perspective of different potential investors and the different reasons for performing the valuation. For example, the break-up value of a company tends to be different from its value if business is continued. The same applies for the valuation of companies from the perspective of different stakeholders. Stakeholder value – irrespective of whether it is interpreted as stakeholder-oriented enterprise value or as enterprise-oriented stakeholder value – cannot therefore be equated to shareholder value either by force or by definition. It must also be remembered that – in theory at least – under the shareholder value concept an increase in shareholder value does not a priori exclude or presuppose a high stakeholder value, nor does it postulate a direct correlation between stakeholder value and shareholder value.
- *Objective assessment of the correlation between shareholder value and stakeholder value:* An objective assessment as to whether a management style that is oriented towards the shareholder value approach “automatically” increases stakeholder value as well, is only possible if this value can be measured. Only the measurement of stakeholder value enables the empirical assessment of whether there is a causal quantitative relationship, and in what form. First of all this allows a practical investigation into whether a significant correlation exists between shareholder value and stakeholder value fundamentally on the one hand, and secondly whether different correlations, or differing degrees of dependency, exist between the orientation of the management, between different sectors or nations, etc. Thirdly, it enables us to examine the question whether a management style oriented towards shareholder value puts certain stakeholders at an advantage or disadvantage.
- *Only what is measured is consciously taken into consideration as well:* The question of which stakeholders should (or must) be taken into consideration, and to what extent, is a key challenge for strategic business management, and one that is currently tackled primarily in an intuitive or broadly schematic way. Whenever a choice has to be made between alternatives and the decision-making scenario is unclear on the basis of qualitative aspects, a measurement provides a particularly welcome form of support. Ambivalent situations arise particularly if the facts are very complex, although a measurement often proves to be particularly tricky precisely in such cases. Since in practice we know that management is primarily geared towards those aspects that can

be measured, a measurement can still be helpful even if the measurement scale does not fully reflect the facts. Solely the fact that something is being measured and a measurement scale is being communicated inside and/or outside the company means that more weight is attached to the aspect being examined. When reaching a decision, however, the limitations on the meaningfulness of a measurement scale must always be taken into consideration.

- *The efficient management of stakeholder relations requires a reliable information base.* The measurement of stakeholder value provides an objective basis for reaching decisions in strategic management and for shaping stakeholder relations. Which stakeholders make a particularly big contribution to the success of the company? Which stakeholders are not given adequate consideration by management and which receive too much attention compared with others? The measurement of stakeholder value also helps judge whether management decisions and measures were successful, and to what degree. In particular it also allows us to determine to what extent stakeholder-oriented management – i.e. one whose aim is supposed to increase stakeholder value – has an impact on shareholder value.

Neither an empirical assessment of the correlation between the shareholder value approach and stakeholder value – or, vice versa, an assessment of the correlation between a stakeholder value approach and shareholder value – nor a quantitatively justified management of stakeholder relations are possible without a measurement of stakeholder value. Since the appropriate analyses support the systematic and efficient management of a company, the question is which valuation methods are basically available to measure stakeholder value.

4. STAKEHOLDER VALUE ADDED

4.1 From the valuation of shareholder value to the valuation of stakeholder value

Value is created when the benefit of a transaction exceeds its cost, thereby producing *surplus benefit*. To determine the enterprise value, forward-looking valuation methods such as the shareholder value approach or the economic value added method therefore compare the expected benefits and costs. These methods take potential risks into account by adjusting the discount rate. In calculating the enterprise value, these methods therefore base themselves on the following three components:

- Expected benefit
- Expected cost
- Expected risk

As we already said, the creation of value through relations with other stakeholders is also expressed in the form of surplus benefit for both sides. The variables to be assessed during the calculation of stakeholder value are therefore once again the benefits, costs and risks expected in future.

4.2 Basis for determining the risk-adjusted surplus benefit

When determining the benefit surplus derived from a stakeholder relationship we need to identify the risk-adjusted costs and benefits and compare them with each other. In this context two problems arise when measuring the stakeholder value:

- First, only part of the benefits and costs is (and can be) converted into monetary value. This means a comprehensive measurement of the entire stakeholder value is impossible. An analysis of the literature that deals with the concept of stakeholder value clearly shows, however, that in almost all cases an assumption is made that the value of stakeholder relations can be measured in economic terms and can therefore implicitly be converted into monetary value.
- Second, if we now examine the question of how stakeholder relations can be valued, we come up against the problem that only the relationship with equity providers is characterised by the flow of money on both sides (see).⁶ In all other stakeholder relationships there is only a one-sided flow of money, which is matched by a real asset (service or material product).⁷

	Cash flow from the company to the stakeholder	Cash flow from the stakeholder to the company
Employees	Yes	No
Government	Yes	No
Suppliers	Yes	No
Customers	No	Yes
Equity providers	Yes	Yes

Table 2: Cash flow relevance of stakeholder relations with a company

To determine the stakeholder value, the question is therefore how to proceed in cases where costs or benefits are not immediately apparent in monetary terms. Once again a distinction needs to be made here between stakeholder-oriented enterprise valuation and enterprise-oriented stakeholder valuation. provides an overview of valuation problems that need to be solved in this context. We need to clarify, for example, how we can determine the costs incurred by the stakeholder “Government”, and the benefits to the company derived from its relationship with the stakeholder “Government”.

	Stakeholder-oriented enterprise valuation “from the company to the stakeholder”	Enterprise-oriented stakeholder valuation “from the stakeholder to the company”
Benefit	Customers	Employees, Government, Suppliers
Cost	Employees, Government, Suppliers	Customers

Table 3: Unresolved valuation issues concerning benefit and cost

These valuation questions have to be answered before it is possible to weigh up the benefit and cost and thereby determine the surplus benefit. In doing so we describe the cash value of the discounted surplus benefits a stakeholder value added. The calculation of the stakeholder value added is the ultimate goal of every stakeholder value calculation, and can basically be produced by the following formula:

$$\text{Shareholder Value Added} = \sum_{n=1}^{n=\infty} (N_n^{ST} - K_n^{ST}) \cdot \frac{1}{(1+i)^n}$$

N^{ST} = stakeholder benefits

K^{ST} = stakeholder costs

n = period

i = discount rate

In this context it must be emphasised that this only represents one possible calculation method. Others distinguish themselves, for example, as regards the point at which the discount is performed during the calculation.

The calculation of the stakeholder value added involves the quantification and conversion into monetary value of not just the benefits and costs, but the risks of a stakeholder relationship. The fact that only part of these benefits and costs are monetary in nature certainly imposes a restriction on the meaningfulness of the quality of relationship between the company and the stakeholder. But a conversion into monetary value does however allow an operationalisation of stakeholder benefit, stakeholder costs and stakeholder value added, and therefore allows a statement to be made on the monetary aspects of the relationship.

	Benefit valued	Benefit not valued
Costs valued	Stakeholder value added	Stakeholder costs
Costs not valued	Stakeholder benefit	

Table 4: Stakeholder benefit, stakeholder costs und stakeholder value added

As shows, in cases where only the benefits, but not the costs, can be calculated it is still possible to determine the *stakeholder benefit*. The *stakeholder costs* can be calculated if the costs, but not the benefits can be determined.

The calculation of the *stakeholder value added as a forward-looking long-term ratio* requires stakeholder benefit and stakeholder costs to be valued over several periods.

4.3 Calculating the surplus benefit of a stakeholder relationship

Nowadays enterprise value is usually determined with forward-looking valuation methods such as the shareholder value approach. The total enterprise value is worked out by balancing out and discounting all expected cash flows in future periods. Not until the next stage is the calculated value compared with the (opportunity) costs of the equity capital.

Figure 5 shows how, as in the traditional calculation of shareholder value, the stakes of all stakeholders who are not equity providers are deducted to start with.⁸ Figure 5 therefore depicts the expected development of a company's sales and its apportionment to the various stakeholders.

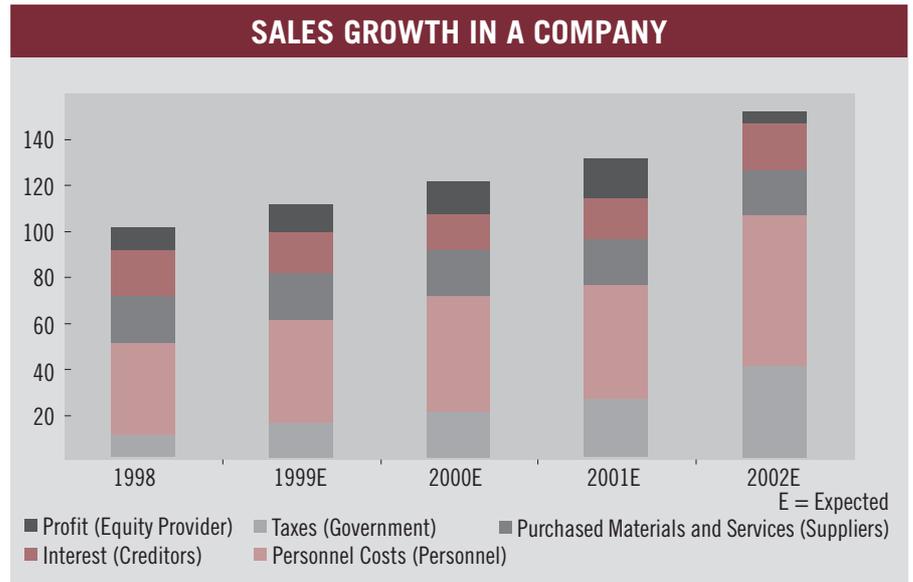


Figure 5: Sales growth in a company

The next step is to deduct taxes, personnel costs and prepaid materials and services, plus any interest on debt capital, from sales (see Figure 6).

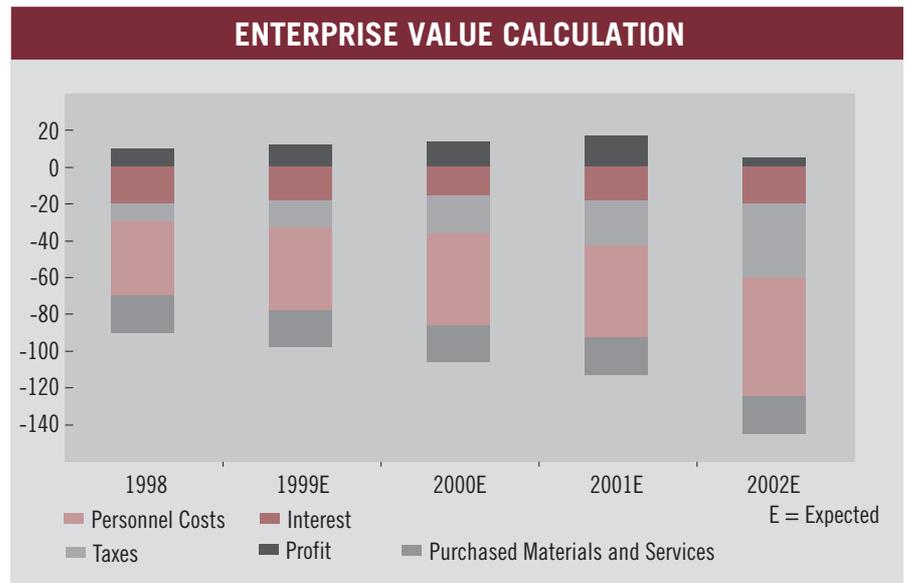


Figure 6: Enterprise value calculation

The surplus benefit illustrated corresponds to the value that can be apportioned to the stakeholder “Shareholder” from the company’s perspective.

A valuation of the surplus benefit from a stakeholder relationship can be performed in a similar way. Here a distinction has to be made between a stakeholder-specific perspective and one that encompasses all stakeholders:

- The stakeholder-specific viewpoint concentrates on a particular stakeholder, such as employees. This allows a focused and direct analysis from the perspective of a certain group.
- The other perspective encompasses the viewpoints of several stakeholders. Depending on the question posed, it may make sense to group together certain stakeholders. With the entity approach⁹, for example, equity providers are considered as a single entity comprising the two categories “creditors” and “equity providers”, thereby enabling a separate analysis of the consequences of operational management and of financing decisions.

To calculate the flow of benefits, we first need to determine what payment in kind is made to a particular group of stakeholders, such as employees. To do so we need to also deduct from sales the (expected) debt capital interest and the (expected) profit, but not the personnel costs. This produces, from the employees’ perspective, the value growth shown in Figure 7.

ENTERPRISE VALUE GROWTH FROM THE EMPLOYEES' PERSPECTIVE

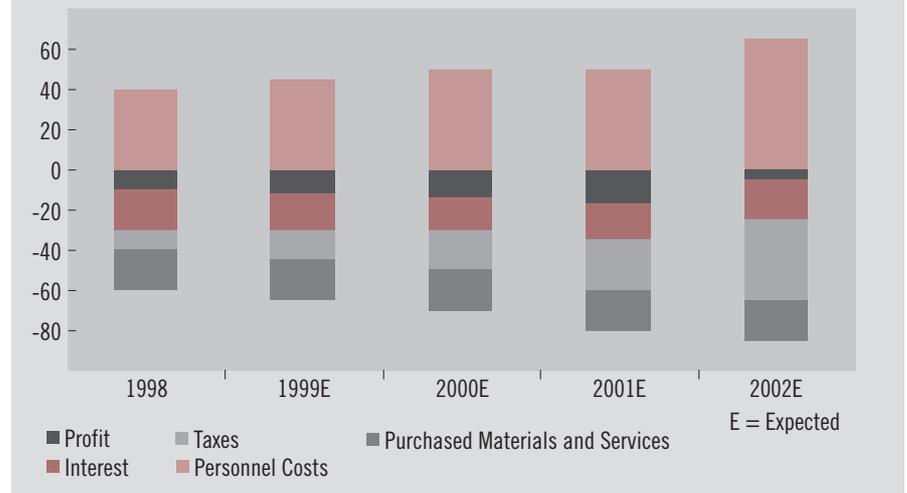


Figure 7: Enterprise value growth from the employees' perspective

The growth illustrated gives the gross values for each period. From the described valuation perspectives of stakeholder-oriented enterprise valuation and enterprise-oriented stakeholder valuation, these payments either represent a benefit (stakeholder-oriented enterprise valuation from the employees' perspective) or costs (enterprise-oriented stakeholder valuation). The calculation of the stakeholder value added now requires that we work out the cash value of the surplus benefits.

4.4 Calculation of the stakeholder value added as enterprise-oriented stakeholder value

The valuation issues discussed in the previous section can basically be solved in all cases where the benefits and costs have a monetary impact on the company. This is not the case with *stakeholder-oriented enterprise valuation*, however, since the benefits or costs are either unknown or cannot be ascertained by a straightforward monetary valuation.¹⁰ The monetary benefit the employees get from their work is very easy to determine through their wages, for example. The costs now have to be weighed up against this benefit. This is not immediately possible, since there is no monetary valuation of the costs from the employees' perspective, for example, and the costs depend on the employer in question – in other words they are subjective. Unless we fall back on approximated average values, it therefore seems impossible to convert into a monetary value the benefit to customers and the costs of personnel, government and suppliers from the perspective of stakeholder-oriented enterprise valuation. If a stakeholder is able to choose between alternative activities and different companies, we can basically assume that the benefit for the stakeholder exceeds the costs incurred through the relationship. Otherwise he would not have opted to provide this type of resource to this particular company. In the case of customers we can normally say, for example, that the (expected) benefit exceeds costs, otherwise they would not have chosen to buy the products of that particular company. In other words, the customers earn a return on their consumption.

To summarise, the stakeholder benefit can be worked out for the stakeholders “employees”, “government” and “suppliers”, and the stakeholder costs determined for the stakeholder “customers”.

In the context of *enterprise-oriented stakeholder valuation*, on the other hand, the benefit is to the company and can be determined. The enterprise-oriented stakeholder value corresponds to the amount of benefit contributed by the stakeholder (or stakeholder group) in question over and above the costs incurred. The benefit created by all stakeholders together can be worked out by deducting the costs of all stakeholder relationships from sales. In this way it is possible to establish how much value the stakeholders create as a whole. Here it is important that the cost of equity is taken into account as well. In other words, the goal is not simply to determine the value added, but the economic profit as the cash value of the discounted surplus benefits.

It is impossible to determine which stakeholder makes which contribution or has which stake, however, since any causal division and apportionment of the remaining profit to shareholders is not feasible. If we assume that a complementary relationship exists between stakeholders, i.e. that in order to perform their service stakeholders have to rely on other company stakeholders and synergy effects apply, an apportionment to individual stakeholders is questionable in any case.

What therefore has to be done is to *put the profit remaining after deduction of all costs in relation to the specific stakeholder costs*. This may seem surprising initially. It should be noted, however, that this procedure in relation to the stakeholder “Shareholder” is not the exception, but the rule. When calculating the financial enterprise value or in the case of producing key figures for working out return on investment, it is frequently assumed that the entire profit can be apportioned to this one stakeholder. The loss of a stakeholder who provides a scarce resource that is essential for the company’s performance of a service can lead to a sharp collapse in earnings or even jeopardise the continuation of the business. That is why it makes sense to come up with a *ratio that represents the relationship between economic profit and stakeholder costs*. Because of the analogy with traditional return on investment ratios, we refer to this ratio as the *Return on Stakeholder (RoSt)*.

The RoSt is a benchmark of the absolute profitability of a stakeholder relationship. The comparison of RoSt with opportunity costs is particularly useful. As with the traditional enterprise valuation, the opportunity costs can be calculated as the average RoSt that can be earned on the market. This *RoSt differential* (value spread) corresponds to the difference between a company-specific RoSt and the RoSt of the market as a whole.

The RoSt differential is a relative size and is expressed in %. The calculation of the absolute company-specific *stakeholder value added* is therefore obtained by multiplying the RoSt with the stakeholder costs.

It is also worth mentioning here that the calculation of the cash value of the surplus benefits requires the quantification of the risk in order to determine the discount rate. This can be done by evaluating specific risks

of the stakeholders in question. If this is not possible due to lack of information or due to cost reasons, another option – and a much simpler one – is to take the usual discount rate for assessing the shareholder value.

4.5 Conclusion

The stakeholder value added concept presented here can be applied to the different stakeholders of a company. A distinction can therefore be made between the different individual components of stakeholder value (Table 5).

Stakeholder	Stakeholder Value Added	Availability of cash flow figures
Equity providers (shareholders)	Shareholder Value Added (Economic Value Added/shareholder value)	Figures readily available
Employees	Employee Value Added	Figures externally available, readily available within the company
Creditors	Creditor Value Added	Figures readily available
Government	State or Governmental Value Added	Figures externally available, readily available within the company
Customers	Customer Value Added	Figures available within the company
Suppliers	Supplier Value Added	Figures externally available, readily available within the company
Neighbours	Neighbours Value Added	Usually no figures available externally, but available internally
...

Table 5: Individual components of stakeholder value added

All the individual components of stakeholder value added listed in can be discussed from the perspective of enterprise-oriented stakeholder valuation and stakeholder-oriented enterprise valuation. The availability of data on cash flows differs, depending on whether the analysis is performed by someone inside or outside the company. As already shown in , however, only benefits or costs of different stakeholders find expression in the cash flow between stakeholders and companies. The only exception is the stakeholders who provide equity.

An analysis of the relationship between the company and shareholders that is focused on an individual component of stakeholder value is already performed in practice for some shareholder relationships. This includes the relationship between the company and its equity providers. More recently, however, the relationship to the stakeholder “Customers” is also being increasingly assessed on the basis of the earning capacity value, the so-called “Customer Lifetime Value”.¹¹

In the next chapter we provide concrete examples of how to calculate stakeholder value added. By way of illustration we calculate

- Creditor Value Added,
- Employee Value Added and
- Governmental Value Added

for leading car manufacturers in the Eurozone.

5. PRACTICAL CALCULATIONS AND CASE STUDY

5.1 How stakeholder value added is calculated in practice

In this chapter we use a case study to explain how to actually go about valuing the stakeholder value added. In doing so, the simple flow chart in Figure 8 provides a good overview of the various procedures.

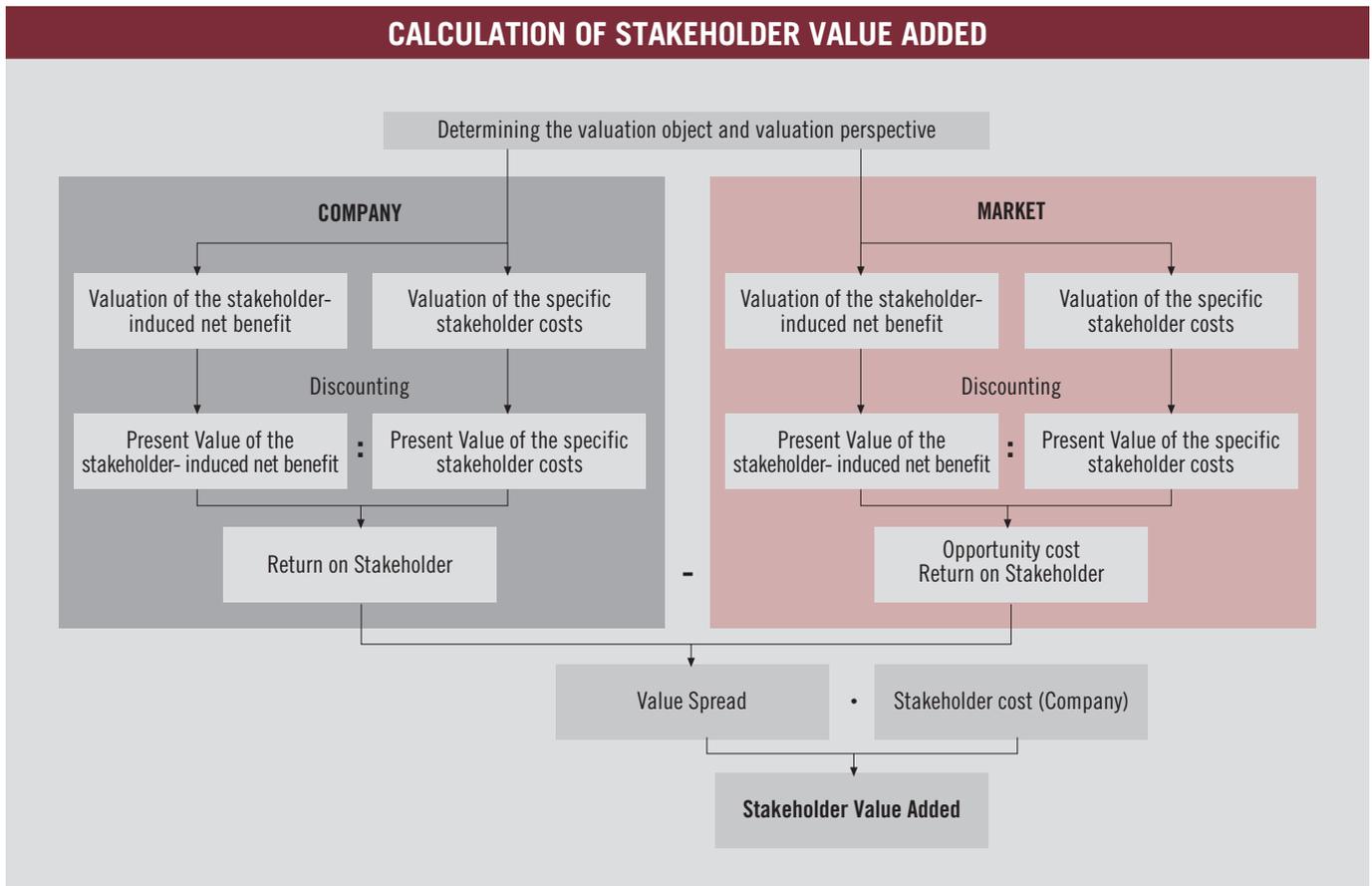


Figure 8: Calculation of stakeholder value added

In what follows we use the structure of this flow chart to explain what needs to be taken into consideration when calculating stakeholder value. Section 5.2 provides a practical example in the form of a case study of the European car industry, and can be read in parallel with 5.1.

(1) Establishing the valuation perspective and the valuation object

As we already explained, every valuation depends on the chosen perspective and the valuation object. The first step is therefore to determine which stakeholder relationships are to be valued, and from which perspective. A basic distinction can be made here between an enterprise-oriented stakeholder valuation and a stakeholder-oriented enterprise valuation. In the explanations that follow, we take the perspective of an enterprise-oriented stakeholder valuation.¹²

(2) Valuation of the stakeholder-oriented net benefit

Value added is created if the benefit exceeds the cost. From the company's viewpoint, value added is created if a surplus benefit is left after

deduction of all the stakeholder costs. One problem in this respect is that a causal allocation of surplus benefits to individual stakeholders is not possible. We already discussed this problem earlier. In what follows, therefore, we assume that the company's entire surplus benefit can be apportioned to each stakeholder. This may appear surprising at first. But that is exactly the assumption regularly made, for example, in the context of the traditional, shareholder-oriented enterprise valuation when the entire surplus benefit is apportioned to shareholders. Adopting a similar procedure can be justified on the grounds that the loss of a stakeholder could mean that the entire surplus benefit is forfeited as well.

To work out the surplus benefit, the figures from the traditional profit and loss account, which do not explicitly take into account the stakes of equity providers, need to be adjusted. To this end the stakes of the equity providers, the cost of equity, are calculated and deducted from the residual amount (profit) to date.

It is in the nature of shareholders' equity that no fixed stakes are usually defined. In return for assuming the investment risk, equity providers are entitled to receive the residual amounts once commitments to all other stakeholders have been met. In the context of traditional earnings-oriented enterprise valuation it has therefore become standard practice for the cost of equity to be fixed at the opportunity cost of the equity. To this end a rate of interest is applied that is equivalent to the average earned on the market for a comparable risk.

In this context it should be noted that from the equity provider's perspective the entitlement to interest payment not only relates to the capital actually put at the disposal of the company, but to the market value of the capital. If an investor buys a share on the stock exchange, he does so with the expectation of receiving an appropriate rate of interest on the entire purchase price and not only on the pro-rata book value of the share.

To value the benefit, the following components therefore need to be determined:

- Company profit before commitments to equity providers are met
- Market value of the equity
- Riskiness of shareholders' equity
- Risk-free interest rate and market risk premium

The *profit before meeting commitments to equity providers* can usually be taken from the profit and loss account. The *market value of the equity capital* corresponds to the market capitalisation, and is of course easiest to determine for companies quoted on a stock exchange. Assuming that only the systematic risk has to be taken into account, the *degree of risk associated with the equity capital* is obtained from the beta coefficient β . The *risk-free interest rate* and *market risk premium* can once again be determined from the stock markets.

The required rate of return on equity comprises two elements. First of all a rate of interest has to be paid that corresponds to the risk-free interest rate. This compensates for the current value of the money, among other things. Then a risk loading needs to be added, which has a linear dependency on the systematic risk assumed. The rate of return on equity therefore corresponds to:

Rate of return on equity = risk-free interest rate + risk premium • beta
 If we multiply this interest rate with the market capitalisation, we get the required return on equity and therefore the cost of equity. When combined with the calculation of the rate of return on equity we therefore get:

$$\text{Cost of equity} = \text{market capitalisation} \cdot (\text{risk-free interest rate} + \text{risk premium} \cdot \text{beta})$$

To work out the profit after the cost of equity and subsequently the surplus benefit, we need to deduct the cost of equity from the profit before equity costs. This gives the following sum:

$$\begin{array}{r} \text{Profit before cost of equity} \\ - \text{Cost of equity} \\ \hline \text{Surplus benefit (profit after cost of equity)} \end{array}$$

The calculation of the surplus benefit must be performed on the one hand for the specific company being valued, and on the other for all comparable companies in the market for all periods on which the valuation is supposed to be based.

(3) Valuation of stakeholder costs

Stakeholders usually incur costs for the company. These costs need to be calculated so that they can be offset against the benefit at a later point. It is easy to find out most stakeholder costs, as they can be taken from the company's profit and loss account. We will therefore take a look at the three stakeholders "employees", "government" and "creditors" in what follows. In Table 6 the stakeholders are compared against the relevant items in the profit and loss account.

Stakeholder	Stakeholder costs in the P&L account
Employees	Personnel costs
Government	Taxes
Creditors	Debt interest

Table 6: Stakeholder and stakeholder costs per period

These stakeholder costs need to be determined – as the benefit already was – for the specific company being valued and for all comparable companies in the market, for all periods on which the valuation is based.

(4) Determining the cash values of benefits and costs (company and market) through discounting

In the previous two steps we worked out the benefit and costs of the individual periods for all the companies. In this step we determine the

cash value. We therefore have to identify how high the benefit and cost of the different periods are at a given point in time. To do so we have to discount the benefit and the cost at this time. The interest rate applied in this context must reflect the riskiness of the benefit and cost flows. The discount rate we use here is the rate or return on equity capital already used to calculate the cost of equity.

(5) Calculation of Return on Stakeholder (RoSt)

In the previous step we determined the cash values of the benefits and costs over the observation period for each company being taken into consideration. Now we compare the benefit and costs for each stakeholder. In other words, we attempt to find out how much benefit in cash value terms is generated per entity “stakeholder costs cash value”. Because of the analogy with return on investment, we refer to this ratio as the Return on Stakeholder (RoSt). This allows different-sized companies to be compared with each other, amongst other things. The return on stakeholder is therefore calculated as follows:

$$\text{Return on Stakeholder (RoSt)} = \frac{\text{Benefit cash value}}{\text{Stakeholder costs cash value}}$$

The RoSt has to be calculated both for the particular company being analysed and for all companies used for comparison purposes as well.

(6) Calculation of the RoSt differential (value spread)

Even if the RoSt differential does give some indication of the profitability of the relationship between the company and the stakeholder, it still lacks the extremely important aspect of opportunity costs. Opportunity costs correspond to the benefit of the alternatives that have not actually been pursued. In the context of the traditional, earnings-oriented enterprise valuation, it is assumed that the opportunity costs of the equity capital comprises the average market yield given the same risk. A very similar approach can be taken for the purposes of valuing the stakeholder value added. The average RoSt is determined. The companies used for comparison purposes and the type of average used depends on the desired message. In our concrete example we compare European car manufacturers with their peers in the Eurozone, i.e. companies in the same industry. To this end we determine the simple arithmetic mean. The opportunity costs can thus be calculated as follows:

$$\text{Opportunity costs} = \sum_{n=1}^{i=n} \text{RoSt}_i / n$$

where: i = company i, n = no. of companies in the relevant market, RoSt = Return on Stakeholder

To work out the RoSt differential, the RoSt of the specific company is balanced against the RoSt of the market:

$$\text{RoSt differential} = \text{RoSt}_{\text{Unt}} - \text{opportunity cost,}$$

Whereby opportunity cost = average RoSt of the market
 This shows to what extent the relationship with the stakeholder has allowed an RoSt to be achieved that is higher than the market average.

Because of the analogy with the traditional enterprise valuation method “economic value added”, we can describe this as the “value spread”.

(7) Calculation of the stakeholder value added

The value spread is a relative result: it represents a surplus return. To determine the absolute stakeholder value, we therefore need to multiply the value spread with the stakeholder costs:

$$\text{Stakeholder value added} = \text{stakeholder costs} \cdot \text{value spread}$$

The stakeholder value added therefore corresponds to the cash value of the excess profits earned with the company-specific stakeholder compared with the stakeholders of other companies.

5.2 The stakeholder value added of car manufacturers in the Eurozone

(1) Establishing the valuation perspective and the valuation object

In this section we attempt an enterprise-oriented stakeholder valuation of the European car industry. We determine the value of the stakeholders of car producers from the manufacturers’ perspective. The valuation is based on the following stakeholders by way of example:

- Employees,
- Creditors and
- Government.

(2) Valuation of the stakeholder-oriented net benefit

The following table shows the surplus benefit for listed car producers in the Eurozone for the period 1994-1998.

	VW	Daimler- Benz	BMW	Peugeot	Renault	Fiat	Porsche
1994	-656.41	-1,684.91	-251.72	-14.10	-	-686.86	-119.29
1995	-363.42	-3,731.34	-188.56	-147.82	-129.48	-66.29	-25.13
1996	74.63	-718.71	-295.67	-270.56	-1,194.32	81.12	-18.14
1997	-260.77	-1,370.32	-411.85	-804.36	390.37	207.79	-31.76
1998	-350.30	-1,505.15	-1,011.22	-155.49	590.68	-598.00	-66.85

Table 7: Surplus benefit in € million (Source: World Equities)¹³

The calculation is explained using the example of Volkswagen AG for 1994. Table 8 provides the data needed to perform the calculation.

1994	Volkswagen
Average market capitalisation (€)	9,873,615,855
Beta	1.1
Risk-free interest rate (assumption)	5%
Market risk premium (assumption)	3%
Group profit (net) (€)	163,102,110

Table 8: Key figures for VW, 1994 (Source: World Equities)

The cost of equity therefore comes to:

$$9,873,615,855 \cdot (5\% + 3\% \cdot 1.1) = 819,510,116$$

The next step is to balance the group profit and the cost of equity, in order to determine the surplus benefit, or in this case cost surplus:

$$163,102,110 - 819,510,116 = -656,408,006$$

The same procedure is used for all other years and for all the other car manufacturers.

(3) Valuation of stakeholder costs

Determining the stakeholder costs is easy: they can be taken from the annual accounts. The stakeholder costs used here are the expenditure items:

- Personnel costs
- Interest paid (gross)
- Tax expenditure

(4) Determining the cash values of benefits and costs (company and market) through discounting

In this step the period-specific costs and benefits must be discounted over the entire observation period at the same point in time. The discount rate used, as already mentioned, is the cost of equity rate. In our example all the values are compounded up to the year 1998. This means, for example, that the tax expenditure of the VW Group in 1994 to the amount of € 159.01 million had a cash value in 1998 of

$$€ 159.01 \cdot 1.083^4 = 218.75 \text{ million.}$$

Table 9 provides an overview of the tax expenditure of the companies analysed during the individual periods, the discount rates applied and the cash values.

	Volkswagen	Daimler-Benz	BMW	Peugeot	Renault	Fiat	Porsche
1994	159.01	604.34	286.83	193.46	-	317.10	2.25
1995	397.27	518.96	274.56	86.44	-46.50	428.65	2.45
1996	661.61	-364.04	365.06	16.01	-57.78	544.86	0.87
1997	1,270.55	-2,035.95	589.52	-153.51	204.74	609.41	9.31
1998	2,067.65	3,075.00	537.36	344.00	362.06	526.26	21.99
Discount rate	8.30%	8.21%	8.69%	7.82%	8.36%	7.01%	8.15%
Cash value	4,943	1,932	2,362	567	457	2,743	39

Table 9: Cash value of tax expenditure in € million (Source: World Equities, own calculations)

Table 10 provides a summary of the cash values of personnel, interest and tax expenditures.

	Volkswagen	Daimler-Benz	BMW	Peugeot	Renault	Fiat	Porsche
Personnel costs	60,614	98,983	29,677	28,764	24,693	43,055	2,419
Interest paid	7,681	4,844	4,545	2,215	1,896	7,121	36
Tax expenditure	4,943	1,932	2,362	567	457	2,743	39

Table 10: Cash value of personnel, interest and tax expenditures in € million

In addition to the cash values of the expenditures we also need to determine the cash values of the surplus benefits. These cash values are shown in Table 11. They are calculated in the same way as the method used to arrive at the cash value of tax expenditures.

	Volks- wagen	Daimler-Benz	BMW	Peugeot	Renault	Fiat	Porsche
Surplus benefit	-1,909.81	-10,867.61	-2,401.56	-1,541.62	-553.41	-1,264.65	-317.39

Table 11: Cash value of surplus benefits in € million

The negative cash values of surplus benefits reflect the bad general economic situation of the car industry between 1994-98.

(5) Calculation of Return on Stakeholder (RoSt)

The Return on Stakeholder is determined by comparing the cash value of the surplus benefit with the cash values of the individual expenditures.

For Volkswagen and the stakeholder "Employees", we can calculate the Return on Employees as follows: $-1,909.81 / 60,614 = -3.15\%$.

	Volkswagen	Daimler-Benz	BMW	Peugeot	Renault	Fiat	Porsche
Return on Employees	-3.15%	-10.98%	-8.09%	-5.36%	-2.24%	-2.94%	-13.12%
Return on Creditors	-24.86%	-224.34%	-52.84%	-69.58%	-29.19%	-17.76%	-892.62%
Return on Government	-38.64%	-562.56%	-101.67%	-271.95%	-121.12%	-46.10%	-808.67%

Table 12: Return on Stakeholder (RoSt)

(6) Calculation of the RoSt differential (value spread)

To calculate the opportunity cost, we have to work out the simple arithmetic mean of the market's RoSt for each stakeholder group. Table 13 shows the corresponding opportunity cost.

Opportunity costs	
Return on Employees	-6.55%
Return on Creditors	-187.31%
Return on Government	-278.67%

Table 13: Opportunity cost

The RoSt differential is worked out by balancing the company-specific RoSt with the opportunity cost. The RoSt differential for the stakeholder "Employee" for the Volkswagen Group is therefore calculated as follows:

$$\text{RoSt differential} = -3.15\% - (-6.55\%) = 3.40\%$$

Table 14 shows the RoSt differentials calculated for all companies and for all stakeholder relations analysed.

	Volkswagen	Daimler-Benz	BMW	Peugeot	Renault	Fiat	Porsche
RoSt differential							
Employees	3.40%	-4.42%	-1.54%	1.19%	4.31%	3.62%	-6.57%
RoSt differential							
Creditors	162.45%	-37.03%	134.48%	117.73%	158.12%	169.55%	-705.30%
RoSt differential							
Government	240.04%	-283.89%	177.01%	6.72%	157.55%	232.57%	-530.00%

Table 14: Value spreads (RoSt differentials)

(7) Calculation of the stakeholder value added

Since the stakeholder value added is an absolute measure, the way to calculate it is to multiply the RoSt differentials with the cash values of the specific stakeholder costs.

Table 10 gives the cash values of the specific stakeholder costs. For Volkswagen, for example, the stakeholder value added for the stakeholder "Employee" is as follows:

$$€ 60,614 \text{ million} \cdot 3.40\% = € 2,063 \text{ million}$$

The next table provides an overview of the calculated stakeholder value added.

	Volkswagen	Daimler-Benz	BMW	Peugeot	Renault	Fiat	Porsche
Employee VA	2,063.02	-4,379.96	-456.46	343.65	1,065.04	1,557.29	-158.83
Creditor VA	12,479.26	-1,793.85	6,112.53	2,608.28	2,997.53	12,074.82	-250.79
Governmental VA	11,865.07	-5,484.24	4,181.30	38.11	719.89	6,380.49	-208.01

Table 15: Stakeholder value added in € million

5.3 Discussion

The success of a company is dictated by how successfully it manages its resource providers (stakeholders). The analysis performed here examines how efficiently companies manage their three stakeholder relations both in absolute terms and relative to the sector average. Here the efficiency of stakeholder relations can be assessed on the basis of the three benchmarks:

- Return on Stakeholder (RoSt),
- RoSt differential and
- Stakeholder value added.

The simplest benchmark for the efficiency of stakeholder relations is the *Return on Stakeholder (RoSt)*. No car manufacturer was able to create a positive RoSt. As the RoSt value of -101.67% for the relationship between BMW and the government shows, the company has € 102 surplus of cost for each € 100 of tax paid.

However, this seemingly very negative RoSt value underestimates the true importance of this stakeholder relationship. The market average reveals a cost surplus of € 279 generated for each € 100 of tax paid. The real value created by the stakeholder relationship between BMW and the government is however determined by the differential between the opportunity cost (Return on Government of -279%) and the company-specific RoSt. The *value spread* for BMW is 177% for the stakeholder “Government” (see Table 14).

Depending on whether we are interested in the value created per € stakeholder costs (e.g. personnel costs) or in the entire value produced by a stakeholder relationship, the benchmark we need to use is either the RoSt differential (relative figure) or the stakeholder value added (absolute figure).

A *positive (or negative) stakeholder value added* shows that the stakeholder relationship produces a higher (or lower) surplus benefit per € stakeholder costs than the market average. Daimler-Benz and Volkswagen occupy the extreme positions in our study. In the case of Daimler-Benz, all the stakeholder relationships are “in the red”, i.e. they create a surplus benefit that is lower than the market average. By contrast, all the stakeholder relationships of Volkswagen are “profitable”, because they create a surplus benefit that is higher than the market average.

The big *differences between the stakeholder value added of the various companies* can also be explained by the different sizes of the organisations. The cash value of personnel costs at Daimler-Benz, for example, is roughly 41 times bigger than that of Porsche. As a result, Porsche shows a “better” stakeholder value added than Daimler-Benz, even though the latter has a slightly better (or rather, less negative) value spread.

As the example of BMW shows, there may well be considerable *differences between the stakeholder value added created by different stakeholders* in the same company. This clearly shows that a high profit does not “automatically” imply that all stakeholder relations are efficiently managed. By the same token, a company loss is not necessarily a sign of inefficient stakeholder relations. BMW, for example, shows a negative employee value added and a positive governmental value added.

The fact that a negative Return on Stakeholder (RoSt) does not necessarily add up to a negative stakeholder value added is illustrated by all analysed companies in this case study. For instance Peugeot und Renault show a negative Return on Government (Peugeot: -271.95%, Renault: -121.12%). Since the market average for the Return on Government is -278.67%, however, which is lower than for these two companies, they have still managed to create stakeholder value added. As this example illustrates, the value of a stakeholder relationship depends not only on the absolute value created, but in particular on the relative value created (or the less eroded value) in comparison with other companies.

6. CONCLUDING COMMENTS

The public discussion generally presents shareholder value and the stakeholder concept as contrasting approaches. But this not only shows a basic misunderstanding of the specific character of each approach, but also obscures the potential that can be exploited through their effective integration.

The *shareholder value* approach is an earnings-oriented valuation method. This method is suited to an enterprise valuation that is geared towards equity capital. It is used to determine the value of an enterprise on the continuation of business, by working out the cash value of the expected surplus benefits. This method has steadily gained popularity in recent years, particularly since it is forward looking and because accounting standards have had a relatively minor influence. The *stakeholder concept*, on the other hand, is an analysis concept of strategic management. It shows which groups have an influence on the company achieving its goals or which are influenced by the company in meeting their own objectives. Stakeholders provide the company with the resources it needs in order to perform a service. The task of company management is to deploy the resources in such a way that value is created, in other words so that the price earned on the market for the output is higher than the cost of the inputs. This makes it even more surprising that the stakeholder approach does not provide for a valuation of the stakeholder relationship from the company's perspective. Without a proper valuation, efficient management of stakeholder relations is purely a matter of chance.

The term "stakeholder value" is already in common usage. One conspicuous point worth mentioning here is that none of the literature seems to provide either a definition, or a method for calculating it. This study attempts to fill this gap, by showing what is understood by stakeholder value and how the relevant valuation of stakeholder relations can be performed.

Stakeholder relations are reciprocal relationships. They always comprise a service and a payment in kind. A distinction can therefore be made between an enterprise-oriented and a stakeholder-oriented stakeholder value approach. A stakeholder relationship will only exist if both companies reckon that they stand to benefit from this relationship. The stakeholder value is therefore equivalent to the cash value of the expected surplus benefits from the company's or the stakeholder's perspective.

The concept proposed in this study for determining the stakeholder value added is the logical continuation of the tried and tested approaches of the earnings-oriented valuation method. It works out the value created by the stakeholder relationship over several periods. To this end the benefits and the costs of the stakeholder relationship are compared with each other. The stakeholder relationship is attractive over a period, if the benefit exceeds the cost during this time. Stakeholder relations are usually long-term relationships (see Liebl 1999, for example). What we are therefore interested in is not so much the surplus benefits during a period, but rather the current value of all expected surplus benefits. To this end we have to discount the expected surplus benefits with an interest rate that is commensurate with the risk involved, and determine the cash value.

We already know from the earnings-oriented valuation method that the opportunity cost has to be taken into account when calculating surplus benefit. Value added is only created if the benefit produced by an alternative is greater than the benefit that would have been achieved with the alternative that was not opted for.

The case study shows how stakeholder value added can even be calculated by external analysts, based on the financial data published in the annual accounts. Using the example of the European car industry, we determine three different dimensions of stakeholder value added (employee value added, creditor value added und governmental value added) from the company's perspective.

If we assume that the goal of these companies is to enhance their enterprise value, the benefit of a stakeholder relationship corresponds to the contribution the stakeholder makes towards an increase in the enterprise value. By analogy to the traditional earnings-oriented valuation method, it is assumed that the stakeholder always contributes value added if he makes a bigger contribution to improving enterprise value per € specific costs than the stakeholders of competitors. This surplus represents the value of the stakeholder relationship after taking into consideration the opportunity costs.

The concept of stakeholder value added therefore allows a quantitative assessment of the value of stakeholder relationships taking into consideration the opportunity costs. This allows a meaningful comparison between companies in the same or different sectors, companies from different countries, or even comparisons of entire sectors. In this way it gives a more objective dimension to the discussion of stakeholder value.

The limitations of this concept currently arise mainly from the availability of data. Current accounting practices, for example, are oriented towards equity capital. It is true that the figures can be adjusted by explicitly taking into account the stakes of the equity providers. Even so, a clear apportionment of benefit and cost flows to individual specific stakeholders (e.g. with suppliers, the public) is often still not possible for external parties making valuations. The allocation of benefit to individual stakeholders is another weak point. Future research efforts should be directed at clarifying the specific benefit contributed by individual stakeholders. As part of a traditional earnings-oriented enterprise valuation, it is quite simply to identify the opportunity cost – by referring to indices, for example. By contrast, when calculating stakeholder value added the opportunity costs need to be determined individually. Although this is more labour-intensive, on the other hand it can help to ensure that the alternatives used for comparison purposes are selected in a way that is more appropriate to the situation.

In practice companies must satisfy stakeholders that compete with each other – irrespective of whether they are committed to enhancing enterprise value. If companies want to be more successful at satisfying competing stakes, efficiency strategies are often the only possible solution. A company that wants to improve its enterprise value must manage its resources efficiently. This is an essential prerequisite for increasing both the shareholder value and the enterprise-oriented stakeholder value.

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FOOTNOTES

- 1 To be precise, this is a double principal agent problem between the shareholders and management on the one hand and the stakeholders (employees, suppliers, etc.) on the other.
- 2 Alternatively the stakes of the creditors can be deducted before discounting the cash flows. This methodology is known as the equity approach, while the discounting of cash flows taking into account the stakes of creditors is known as the entity approach. With the equity approach, the shareholder value is calculated as follows:

$$\text{Shareholder value} = \sum_{n=1}^{n=\infty} \text{NFCF}_n \cdot \frac{1}{(1+i)^n}$$

where NFCF= Net Free Cash Flow, n = period, i = discount rate (cost of equity)

- 3 See here (among other things) the overview of newspaper and journal articles and news agency press releases provided in the annex.

This is shown by a survey on shareholder value conducted with Swiss companies in 1996 by the newspaper "Finanz und Wirtschaft", in which respondents were asked to give examples of ways in which their companies may have enhanced stakeholder value. Most respondents ignored this additional question or answered it with a general comment on the company's relationship with its stakeholders (Finanz und Wirtschaft, 13 August 1996 edition).

- 4 It is also apparent in this context, however, that the choice of the term shareholder value is rather unfortunate from an etymological viewpoint. At first sight one could be misled into thinking that the main purpose of shareholder value is to determine the value of the shareholder. The term "enterprise value", for example, is taken to mean the value of the company from the viewpoint of all equity providers, rather than a value from the perspective of the enterprise.
- 5 In what follows, we assume that the company makes a payment to the stakeholder in return for the supply of a resource to the company. In the case of the stakeholder "Customer", however, there is a payment from the stakeholder to the company. The deliberations that follow are equally applicable to this case.
- 6 A reciprocal flow of money also occurs in the case of banks and insurance companies and their customers. We do not go into this special case here.
- 7 In exceptional cases the cash flow may also flow in the opposite direction. For example, if the government pays out more in subsidies than it receives in taxes.
- 8 In what follows we do not differentiate between the figures of the capital flow account, which are at the heart of the shareholder value approach, the profit and loss account figures, which provide the starting point of the economic value added approach, and figures of company-internal cost-accounting.
- 9 For the difference between the "equity" and "entity" approach, see also footnote .
- 10 The stakeholders who provide equity are of course excluded from this.
- 11 See, for example, Link/Hildebrand (1997).
- 12 If the necessary data are available, it is also possible to determine the stakeholder-oriented enterprise value.
- 13 In the case of Daimler-Benz all numbers in this and the following tables for the year 1998 refer to the newly merged Daimler-Chrysler Corporation.