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**Title: Beyond Performance Measurement: Contribution Measurement**

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**Structured Abstract**

**Purpose:** The aim of the paper is to open a new horizon in the concept of Performance Measurement in business organisations, where the organisation is not looked at as an isolated entity and the impact of its performance on the society in which it performs is also taken into consideration.

**Design/Methodology/Approach:** To achieve the above purpose the paper presents the idea of Contribution Measurement with the use of an imaginary scenario. The scenario is based on published empirical research and is taking a mobile phone company as an example. The findings of relevant published research are used to establish the cause and effect relationship between a number of social issues and some of the performance objectives that are listed in a balanced scorecard that has been proposed for the mobile phone company.

**Findings:** Based on the result of cause and effect study, the balanced scorecard is extended to demonstrate its social impact. It is argued that the aim of the extended scorecard is not to maintain any balance, as this is practically difficult, if not impossible. The aim is simply to provide insights into the contribution of a business organisation to the society. The whole process therefore is called Contribution Measurement. However ‘measurement’ here refers to the broader meaning of the word and is not restricted to numerical measurement.

**Social Implications:** One of the major benefits of ‘contribution measurement’ is to recognise and understand how the performance of an organisation may affect the society.

**Originality/Value:** This is the first attempt to go farther than what is known as sustainable performance measurement. This is done by removing the restrictions that are normally imposed by the concepts of ‘numerical measurement’ and ‘importance of balanced measures’. The work is an initiative and a first step for a breakthrough research in the area of performance measurement.

# Beyond Performance Measurement: Contribution Measurement

By: Farhad Shafti

## **Introduction**

Performance measurement has come a long way from the traditional financial measures to the last generation Balanced Scorecard. Throughout this long journey, one of the most important drivers of progressing towards more advanced performance measurement tools was looking at the bigger picture (Harbour, 2011). Emphasis on aspects of performance that affect customer satisfaction was among the first revisions aiming to make performance measurement more than just a monitoring tool for financial goals (Neely, 1999). Balanced Scorecard is perhaps the best example of looking for the wider picture where the goal is to look at the performance of an organisation from different perspectives (Kaplan and Norton, 2013).

The motivation behind this research paper was the appreciation of the fact that a business organisation, as one of the entities of a much wider network, affects many other entities in this network. To limit the scope of performance measurement in an organisation to its own business goals will result in practically disassociating it from its effects on the social environment in which it operates. This research paper argues that although this limited scope perspective of performance measurement may be beneficial for a business organisation, it does not necessarily benefit the social environment in which the business is operating. Furthermore, in the long term, this can work against the business organisation as well.

This can be illustrated by a very simple but extreme example. An organisation that produces an addictive, harmful, yet legal product may be satisfied by measures of productivity. However, this is only if the measures of increasing rate of fatalities, due to increased productivity, are ignored. In other words, while increasing productivity brings money to the organisation, it takes away lives from the society. As it stands at this era, the main focus of business organisations is on the commercial impacts of their performance. Exceptions can be found mostly where there are legally imposed measures to maintain sustainable use of energy and environmental concerns; however, the scope of measurement does not normally go beyond this.

This paper illustrates how the performance of an organisation can affect the different aspects of the society that surrounds it. It also demonstrates how the organisation may be able to break through its commercial boundaries in order to measure its impact on different aspects of society. An imaginary scenario, based on published research findings, is developed for this purpose. This has led to the development of a framework that is titled 'Contribution Measurement'.

The paper represents a view point that is still under development and invites the attention of the academic and industrial community to engage more with this line of research.

## **Background**

Performance measurement, by nature, is a multi-disciplinary area of research (Marr and Schiuma 2001, Thorpe and Holloway 2008). In fact, this diversity seems to be one of the reasons that the subject of performance measurement has not yet established itself as an academic field (Neely, 2005). The excitement of this field of study, however, is not limited to being a multi-disciplinary one. It also has the capability of absorbing a variety of other themes to its corpus (Taticchi, 2009). The emergence of new additional themes in the field of performance measurement is directing the future of research in this area of study (Taticchi et al, 2010).

Neely (2005) considers ‘measuring performance across supply chains and networks’ to be one of the research questions in the area of performance measurement and management. It is evident from research papers that look at performance measurement across networks that the word ‘networks’ here essentially refers to the networks of organisations that are in a business relationship with each other. Examples include the network of university and industry (Perkmann, et al. 2011), the supply chain network (Morgan 2007, Ramaa, et al. 2009), the enterprise network (Saiz et al 2007), and the after-sales service network (Gaiardelli, et al. 2007).

In a comprehensive literature review, Taticchi et al. (2010) have listed more than ten frameworks that have been developed to bring an integrated perspective to performance measurement. As impressive as these frameworks are, the list suggests that there is little attempt to look beyond business aspirations.

The closest idea to the premises of this research paper is the concept of a sustainability balanced scorecard. The researchers who developed and promoted this concept are raising the same concern that was referred to at the start of this paper; that is, economical goals are not enough for a ‘responsible’ organisation. Butler et al. (2011) mainly look at the inclusion of environmental concerns (green measures) in a Balanced Scorecard. Tsai et al. (2009) develop a Balanced Scorecard for a socially responsible investment. Examples of the measures included in this Scorecard are health and safety, pollution prevention, community participation, and customer supplier relation.

There is a consistent line of research on the subject of sustainability measures and performance measurement by Schaltegger and co-authors. Schaltegger et al. (2006) refer to a triangle of economic, ecological and social effectiveness and efficiency. They argue that while the first two provide a clear set of measurable targets, the targets for social efficiency and effectiveness are rather vague. Nevertheless, the authors define social effectiveness and efficiency by the ratio of value added to the positive and negative impacts on society, originating from a company. In an earlier paper, based on the same premises, Schaltegger and co-authors develop what they refer to as a “Sustainability Balanced Scorecard” (Figge, et al. 2002).

In fact, attempts to bring the concept of sustainability to the area of performance measurement come from the same perspective as this research paper. Although, the movement is praiseworthy and enlightening, there does seem to be some limiting elements. The requirement of measurement seems to have limited the scope of the link between social sustainability and performance measurement. Another limitation of the inclusion of social

aspects in performance measurement systems seems to be the inherited assumption that all measures in a measurement framework should be met and remain balanced with other measures. Furthermore, while the above researches look at social links within a business organisation and its activities, they still seem to be limited to the ‘very close suburbs’ of the business organisation and its goals. The areas of study seem to be mostly limited to environmental concerns and energy consumption, much of which are beginning to become part of the legal requirements anyway. Schaltegger et al. certainly go beyond environmental concerns but still limit the scope of social effectiveness and efficiency to ‘safeguarding the social acceptance of the enterprise and the legitimation of its business activities’ (Schaltegger et al., 2006, p. 9).

In the next section, an imaginary scenario is developed to illustrate how it may be possible to break the above limitations and go beyond what is known as performance measurement.

### Developing a scenario

An imaginary scenario is developed for a mobile phone service provider. Although this is an imaginary scenario, it has used findings from published empirical research as input. The objective is to take a typical Balanced Scorecard, project how the measures in the Balanced Scorecard may have different social effects and then link the Balanced Scorecard to these effects.

To begin with, an excerpt from a Balanced Scorecard, developed for the Vodafone Group is used as the starting point. The actual Balanced Scorecard has more measures; however, for the sake of brevity and due to lack of primary data, a partial version of it is reproduced as illustrated in figure 1. Only one objective for each perspective is selected.

Perspective	Organisational Performance
Finance	Maintain investment in new and existing market
Customer	Encourage more customers to come on to the network
Business Process	Increase operational efficiency
Learning and Growth	Create and launch new valued added services

Figure 1: An excerpt from a Balanced Scorecard proposed for the Vodafone Group (Based on Sekiguchi, 2010)

In the second stage, the performance objectives in the above scorecard are linked with a number of cause and effect social variables. While linking these cause and effect variables to the performance objectives is only for illustration, thus imaginary, the cause and effect variables themselves are derived from already published findings of empirical research. Two main social issues are used for this scenario: the ‘effect of mobile phone on the end users and their relatives’ and the ‘effect of pressure for more efficiency and new value added services on employees’. Each of these two issues is linked with two of the performance objectives in figure 1.

The links to the ‘effect of mobile phone on the end users and their relatives’ is presented by the following causal map (figure 2a) and followed by a brief explanation:

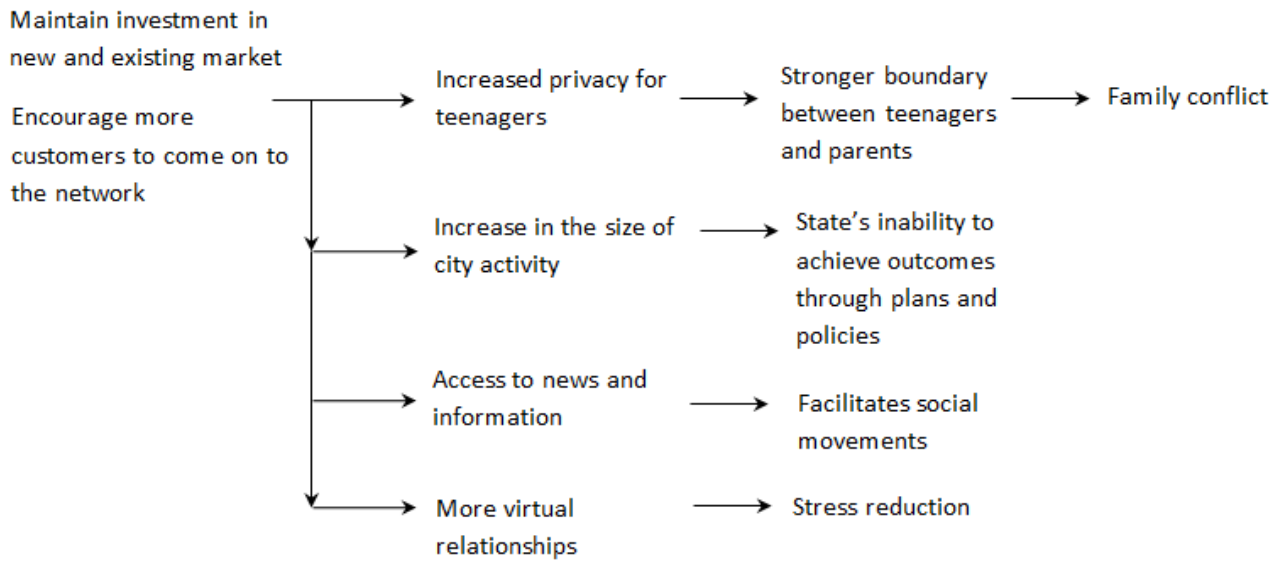


Figure 2a: Some of the effects of using mobile phone on the end users, based on published research

Figure 2a presents a situation where some of the effects of using mobile phone are linked with the objectives of the Vodafone Group to ‘maintain investment in new and existing market’ and ‘encouraging more customers to come on to the network’. According to research carried out by Pertierra (2005), mobile phones bring more privacy to teenagers. This increased privacy in turn strengthens their boundaries with their parents which can be a source of family conflicts (Ling and Yttri, 2001). Townsend (2002) has found that mobile phones increase the size of cities, not physically, but in terms of people’s activities and productivity. Townsend argues that this makes the public more innovative and proactive than before and results in inability of the state in achieving outcomes through plans and policies. Similarly, Pertierra (2005) argues that the increasing access to news and information makes social movements much easier than before. One of the positive effects of being in a culture of mobile phone use, based on the research by Toda et al. (2006), is that it helps with reducing stress and tension, in particular among teenagers.

The link to the ‘effect of pressure for more efficiency and new value added services on employees’ is presented in figure 2b and is followed by a brief explanation:

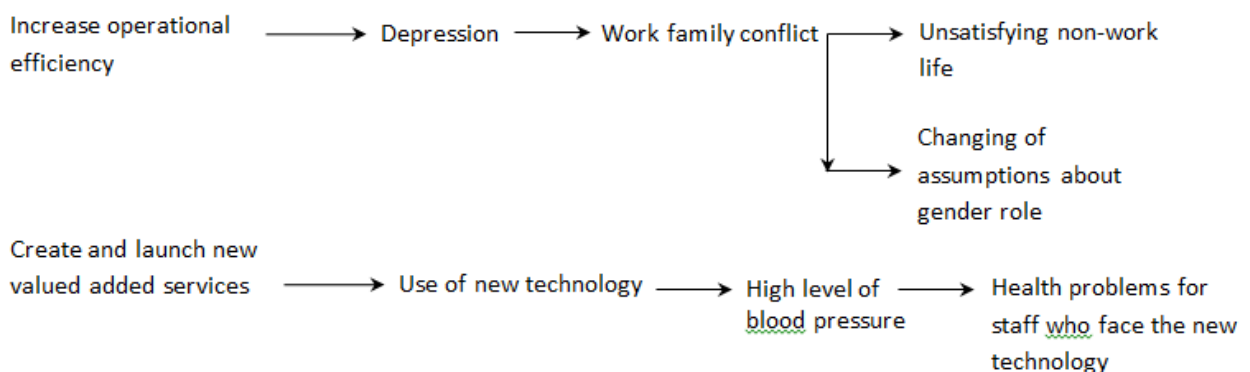


Figure 2b: Some of the effects of pressure for more efficiency and new value added services on employees, based on published research

In the above causal map, based on Iacovides et al. (2003), it is assumed that increasing operational efficiency will result in pressure, leading to depression among employees. According to Matsui et al. (1995), this depression results in work family conflict which causes feelings of dissatisfaction with life outside the work place. When female workers are subjected to this family conflict, it leads to a gradual change of assumptions about the different roles husband and wife have within family and society. The lower part of figure 2b is based on the assumption that creating and launching new value added services involves the introduction of new technology. According to research by Kawakami and Haratani (1999), when employees face new technology for the first time, their blood pressure increases. This obviously can result in health problems for these employees.

It is important to note that this research paper is not depending on the validity of the above cause and effect relationships. While verifying the validity of the above relationships and their link to the Vodafone Group is interesting, this is not the concern of this work, as they are only used to develop an imaginary scenario.

### Contribution measurement

In the third stage, the above social outcomes are added to the excerpt of the Balanced Scorecard for the Vodafone Group. This is illustrated in figure 3:

Perspective	Organisational Performance	Social Contribution
Finance	Maintain investment in new and existing market	<ul style="list-style-type: none"> <li>- Family conflict</li> <li>- State's inability to achieve outcomes through plans and policies</li> <li>- Facilitates social movements</li> <li>- Stress reduction</li> </ul>
Customer	Encourage more customers to come on to the network	
Business Process	Increase operational efficiency	<ul style="list-style-type: none"> <li>- Unsatisfying non-work life</li> <li>- Changing of assumptions about gender role</li> </ul>
Learning and Growth	Create and launch new valued added services	<ul style="list-style-type: none"> <li>- Health problems for staff who face the new technology</li> </ul>

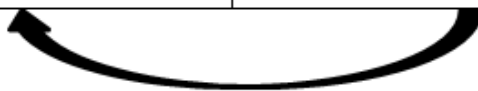

  
*Possible correcting measures where feasible*

Figure 3: Contribution Measurement - Linking the social issues with an excerpt from a proposed Balanced Scorecard for the Vodafone Group (Based on Sekiguchi, 2010)

In figure 3, the outcomes of the social effects are listed in front of their corresponding organisational performance. To understand the thinking behind figure 3 and its practical use, a number of notions are listed as follows:

Notion 1: Performance Measurement is limited to the goals of a defined organisation, therefore it can, and it should be, balanced. However, since Contribution Measurement constitutes the goals of different social groups, it cannot be balanced.

As referred to earlier, one of the imposed limitations of attempts to go beyond business related performance is the presumption that the measures should be balanced. Schaltegger et al. (2006) argue that it is not possible to fulfil all social objectives. Contribution Measurement is developed with the view that the purpose is not fulfilling the objectives in a balanced way. The main purpose of Contribution Measurement is to simply ‘understand and appreciate’ some of the social outcomes of the organisation’s business objectives.

Notion 2: The word ‘measurement’ for ‘contribution’ is used in a very broad sense which implies identifying and understanding.

The problem of ‘measurement’ was another limitation that seemed to slow down and restrict the attempts to go beyond business performance measurement. Contribution Measurement accepts this limitation and surrenders to it. It is obviously difficult to numerically measure some of the above social outcomes, and it seems almost impossible to measure what the share of a business performance objective might be in the formation of these outcomes. Contribution Measurement aims to identify and understand a contribution rather than numerically measure it.

Notion 3: While some of the contributions of a business organisation to its social environment can be easily labelled as positive or negative, many of these contributions can only be labelled as good or bad once the social values are defined.

The unrestricted nature of Contribution Measurement also manifests in the fact that it appreciates the subjectivity of the value of the social outcomes. In figure 3, ‘family conflict’, ‘unsatisfying non-work life’ and ‘health problems’ are certainly negative contributions, while ‘stress reduction’ is a positive contribution. The rest of the outcomes, however, (i.e. state’s inability to accurately plan ahead, facilitated social movements, changing of the assumption about gender roles) cannot be easily labelled as positive or negative contributions. It may be the set values of the society that determine whether these are positive or negative contributions. This itself is very much subjective and can vary based on different stakeholders involved.

Notion 4: Appreciating that Contribution Measurement can prompt and help ‘responsible’ organisations to initiate objectives and measures that see beyond the organisational commercial goals and relate to common social (national) goals.

Although in Notion 1 it was stated that the purpose of Contribution Measurement was to simply understand and appreciate some of the social outcomes, this does not mean that there are no other benefits. Some of the benefits of Contribution Measurement are discussed in the next section; however, for a responsible business organisation, the immediate benefit of understanding and appreciating these social impacts is that it can feed this back to the Balanced Scorecard (as in figure 3). The objective will be to determine whether it is possible to revise or add some measures that could increase and decrease the positive and negative contributions respectively, while also affecting other contributions based on the value sets that the organisation is subscribed to. For example, in the above imaginary scenario, Vodafone



Group may add the performance objective, ‘developing family socialising apps’, to reduce the ‘family conflict’ impact. Likewise, ‘helping with smooth adoption of new technology’ can be an additional performance objective to reduce health problems. However, as stated in Notion 1, not all desired and undesired contributions can be taken care of by the organisational performance. At the end, it has to be appreciated that there are some conflicts of interest between different stakeholders involved that cannot be resolved.

### **Conclusion and recommendations for follow up research**

In the increasing complexity of the society at this era, restricting the understanding of organisational performance only to business goals is similar to the famous story of the elephant in the dark room, in which people who had never seen an elephant developed a false understanding of what the elephant was. It is only after understanding and appreciating the whole picture that true values and effects of an organisation’s business performance can be determined, directed and correctly positioned in the social network that the organisation is performing in.

Performance Measurement has come a long way in widening its scope of interest. This article proposes another step towards improving performance measurement systems but in an ironic way; that is, by breaking the rules related to ‘measurement’ and ‘balance’. An imaginary scenario was developed on the basis of published research to introduce and illustrate the concept of Contribution Measurement. While the campaign of sustainable performance measurement is appreciated, the concept of Contribution Measurement goes a step further by opening the doors of performance measurement frameworks, like Balanced Scorecard, to the variety of social impacts of the performance of organisations.

The above imaginary scenario is of course limited in scope and is also not fully defensible in terms of validity. In terms of scope, only two streams of social impact were looked at: ‘effect on end users’ and ‘effect on employees’. The whole concept of contribution measurement is to ensure that significant impacts of the business organisation’s performance are accounted for. A business organisation’s performance certainly affects its employees and end users. However, it can also affect many other aspects of society, including the state’s policies, educational system, health system, economy, culture, etc. What was produced above is, therefore, only a fraction of what needs to be developed in order to study the wide contribution that a business organisation’s performance may have on the society in which it performs.

In terms of validity, this was only an imaginary scenario. While the social impacts were taken from published research, their link to Vodafone Group performance was only an assumption for illustrating purposes. For reliable work that could examine and materialise the benefits of Contribution Measurement, empirical research will be needed. The advantage of this, beside the fact that it provides more reliable insight, is that it enables the recognition of different degrees of relationship in the cause and effect links. This can determine what causal relationships are worth being included in a contribution measurement framework.

An obvious follow up research to this work is therefore one that studies the impact of a business organisation’s performance on the society from a number of angles, using collected

data as well as experts' views. This will bring both appropriate scope and validity to the concept of contribution measurement. This can be facilitated by adopting Management Science tools like System Dynamics and Multi Criteria Decision Analysis (MCDA) to provide more in-depth analysis and insights. System Dynamics can help with studying the strength of the impact of an organisational performance objective on different aspects of the society. MCDA can facilitate the process of prioritising those impacts that are deemed more desirable. This is in particular important in view of the fact that Contribution Measurement does not promise balanced measures. Such inclusive, validated and analytical research projects can benefit those organisations that, in the words of Schaltegger et al. (2006), are 'responsible' and therefore care about the effect of their performance beyond business boundaries. Contribution Measurement can also be a beneficial exploration tool for policy makers who care about the short and long term effects of economic activities on different aspects of society. Finally, experts in different fields of study, related to the impacts of organisational performance, can not only help with developing a contribution measurement framework for an organisation, but can also use the framework for further studies and expert recommendations.

It is obvious that the above proposal is a multi-disciplinary research project that requires expertise from different disciplines. The author hopes that this viewpoint paper would generate enough interest to facilitate such multi-disciplinary research.

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