KPMG's True Value methodology: a critique of economic reasoning on the value companies create and reduce for society

Abstract

Purpose The purpose of this paper is to constructively critiquing KPMG's "True Value methodology" which seeks to quantify in financial terms the value companies create or reduce for society.

Design/ methodology/approach This paper is based on a review of documents produced by KPMG detailing its methodology and corporate reports in the public domain of the True Value methodology applied in practice. The critique is divided into two sections. The first section reviews KPMGs methodological view of a bounded economic reality and offers potential starting points and limitations for a conceptual framing of the 'methodology'. Practical insights on applying the methodology are offered in the second section.

Findings The True Value methodology helps its producers understand the potential risk to future earnings posed by current externalities being internalised. KPMG's socio-economic framing of future scenarios and financial valuation of environmental and social impacts is limited to a standardised commercial viewpoint. Potential opportunities exist for producers to involve stakeholders in the application of the methodology to form a more inclusive and pluralist conception of risk and values for social and environmental impacts.

Originality/ value A constructive critique of this contemporary, financial practice of accounting for externalities developed by KMPG.

Practical implications Offers timely insights for companies using and considering the use of the "True Value" methodology and stakeholders considering their engagement in the application process and/or use of its findings.

Keywords True Value methodology, externalities, core values, multiple capitals

Paper Type Conceptual

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Introduction

To review KPMG’s True Value methodology it is important to establish its purpose, how it will achieve this, and why and for whom this offers a contribution. KPMG publically launched its True Value methodology in 2014 through the publication *A new vision of value: connecting corporate and societal value creation* (KPMG, 2014a). A message included from KPMG’s Global Chairman, John Veihmeyer is that “to do well in today’s business environment, you increasingly have to measure, understand and proactively manage the value companies create or reduce for society and the environment as well as for shareholders” (KPMG, 2014a; 4), a purpose the methodology aims to achieve. He goes on to recognise that key drivers of corporate value - revenues, costs and risk – are now significantly impacted (materially) by social and environmental externalities a view reaffirmed many times throughout the report and other publications by KPMG (KPMG, 2012; KPMG, 2014a; KPMG, 2014b). Taken together this evidence is used to justify the development of the True Value methodology to help companies understand the potential impact of the social and environmental externalities which they create on their financial earnings and risk to financial return. It also provides a basis for evaluating the contribution and limitations of the methodology.

The detail of KPMG’s (2014a) True Value methodology launch report outlines how it aims to achieve its purpose by internalising the net present value of a company’s material economic, social and environmental externalities to produce the ‘true’ value of current earnings for the company. The “bridge” between the traditional financial statements and this ‘true’ value then becomes the subject for management attention and a key aspect that brands KPMG’s methodology. Building on an examination of risk to revenues, this method appears to be directed at private sector organisations. While the lens through which KPMG are viewing risks is the creation and reduction of value for society and the environment, ultimately value considerations are centred on the financial performance of the company and management of material risks which may affect long term financial stability. As such, the True Value methodology appears to be a ‘tool’ for financial risk management.

The methodology is positioned by KPMG as one of a number of ‘initiatives’ which have been developed in response to what KPMG (2012; 2) call “sustainability megaforces” which reflect a need to manage the impact of economic activities. KPMG recognise that the contribution of economic activities to megaforces is of such scale and potential influence that corporate responsibility for externalities have become impossible to ignore. This would include, for example, climate change, water scarcity and food security (for all megaforces recognised see KPMG, 2014a; 16 Figure 3 Interconnected systems of social and environmental megaforces[1]). Their methodology can be distinguished by the impacts they choose to recognise and the importance they place on financially valuing these impacts as a perceived necessity for management. KPMG's philosophical reasoning and potential theoretical framing of their methodology is explored in detail in the next section few section. This section continues by exploring the claims KPMG make.

KPMG claim their True Value methodology is distinct from other current initiatives given its focus on social impacts, not just environmental impacts (see for example the environmental focus of the Natural Capital Coalition), and positive social externalities as well as negative externalities which other similar methods focus on (see for example the Shared Value Initiative which is focused on identifying and addressing social problems manifesting from negative corporate impacts). In total, KPMG (2014a; 36 Table 4[2]) compare their True Value methodology to eight "current initiatives on social and environmental value creation" in terms of measurement and management criteria and then recognises five "business organizations working on reporting standards" (KPMG, 2014a; 37 Table 5[3]). As noted earlier, the requirement for value measurement is a priority for KPMG and one through which it recognises affiliation.

KPMG seek to legitimise the use of their True Value methodology alongside but distinct from these other initiatives on the basis that they are responding to stakeholders growing expectations of corporate social responsibility and accountability and ultimately market demand and developing legislation (See KPMG, 2014; 26). It is noteworthy that the choice of initiatives used by KPMG as a benchmark for comparison and contrast with their methodology require further justification as others exist with similar features[4]. For example, Kering's[5] Environmental P&L account is one approach not included despite its consideration of impacts on people and its notable use by Natura

[1] KPMG, 2014a; 16 Figure 3 megaforces includes: population growth; wealth; food security; ecosystem decline; deforestation; climate change; energy and fuel; material resource scarcity; water scarcity; and urbanization.
[2] KPMG, 2014a; 36 Table 4 includes: B Impact Assessment; Environmental Profit and Loss Statement by BSO/ Origin 1990 and Puma 2010; Natural Capital Protocol by Natural Capital Coalition formerly TEEB; Redefining Value by WBCSD; Shared Value by the Shared Value Initiative; Social Return of Investment by SROI Network; Total Impact Measurement & Management (TIMM) by PwC; and True Price.
[3] KPMG, 2014a; 37 Table 5 includes: Integrated Reporting by the IIRC; Natural Capital Accounting work stream by the EU Business and Biodiversity Platform; Sustainability Accounting Standards by SASB; Sustainability Measurement and Reporting System by The Sustainability Consortium and The Prince's Accounting for Sustainability Project by A4S.
[4] An extensive review of similar 'initiatives' is considered to be outside the scope of this paper.
[5] See http://www.kering.com/en/sustainability/epl

and Novo Nordisk since its inception. The distinction of KPMG's Methodology with respect to other 'initiatives' is an important consideration for future research and practice.

By recognising their positive and negative influence on society and the environment the company employing the True Value methodology may choose to strategically take action to reduce negative impacts and/or increase positive impacts by aligning corporate strategy and management decision making with social welfare and environmental protection. In setting out its position on value creation, KPMG (2014a; 6) argue "externalities are now part of every company's value creation story". In terms of transparency and accountability, the alignment of corporate and societal values advocated by KPMG's (2014a; 89) "agenda for change" should be traced back to the core values on which the company is founded. Ultimately, it is core corporate values which will influence the extent to which management attention is devoted beyond risk to revenues to any 'moral' reasoning for accounting for corporate externalities.

KPMG views its strength as its basis on standardisation through a reduction of social value to comparative economic units. Conversely, others may argue that its greatest limitation is its failure to recognise the importance of other (often intrinsic) value system which individuals or collectives in society may use to represent economic impact. These opposing views will be explored further in the next section.

The review and critique which follows is based on further analysis of documents produced by KPMG detailing its methodology and review of its application as reported in the public domain by, or on behalf of, a number of corporate cases (See KPMG, 2014a; 83, for example the case of Holcim/Ambuja Cement Limited India; Ambuja, 2014; Holcim, 2015; KMPG, 2015a NS Dutch Railways and KPMG, 2015b Volvo). KPMG (2014a; 57) also refers to a further 3 hypothetical (or anonymous) case studies for illustrative purposes, these are also reviewed. This critique is considered with reference to a broad academic literature on accounting for externalities and social and environmental accounting and reporting (See for example major works O'Dwyer and Unerman, 2016; Gibassier and Schaltegger, 2015; Bebbington et al., 2014; Gray et al., 2014; Gray, 2010; Gray, 2006; Adams, 2004; Bebbington et al., 2001; Owen et al., 2000; Gray et al., 1997; Bebbington and Thomson, 1996; Gray et al., 1996; Milne, 1996; Gray et al., 1993; Gray, 1990; Owen et al., 1987; Mathews, 1984).

My findings are divided into three sections. The first section includes a philosophical critique of the True Value methodology, as evidenced throughout the KPMG launch report (KPMG, 2014a). The second section questions the degree to which the True Value methodology has a clear theoretical underpinning and considers its fit within social and environmental literature. Building on this, suggestions are made for potential areas for theoretical framing and future empirical research. This is followed in the third section by practical points for consideration drawn from the three steps outlined by KPMG for the application of the True Value methodology (KPMG, 2014a; 39 see section 3) and evidence from reports of its producers (those applying the methodology see later). Each step of the application is considered in turn. In conclusion the potential contributions and challenges of the methodology are recognised and points for future research and practice are offered.

Findings

Philosophical critique

Truth is founded on two fundamental philosophical questions the answers to which we build theory and practice upon. What can be known? This helps us to establish our ontological position. How can we find out about whatever it is that can be known? This helps us to establish our epistemological position. The labelling of KPMG's (2014a; 5) "True Value methodology" highlights the importance of this philosophical position whether by inference or design. Linking truth to how we value something is an important philosophical requirement in both knowledge production, regarding the thing being identified, and the ontological position on the reality from which truth is formed. KPMG's insistence on financial valuation of its social and environmental impact reflects a positivist view of an economic reality (what can be known) where value is rationalised and knowledge is formed with reference to the market (as a source of knowledge creation). For those sharing KPMG's economic viewpoint, the subject of critique is how robust are the measurement assumptions and financial valuations proposed by KPMG.

Arguably KPMG move towards, what can be termed, a post-positivist methodology by accepting that the producer of their True Value methodology can influence what is being valued through the assumptions which they make about the future and appropriate methods of valuation. From a post-positivist position KPMG continue to pursue objectivity through standardization and essentially call for recognition 'of the effects of bias' by the producer on the choice of what is valued and market proxies. Ultimately, value creation and reduction for KPMG remains purely financial and is determined around views on the earning potential of the corporation.

Research and practice has shown that others, with alternative worldviews, may fundamentally reject that financial valuation can in whole or part be used to represent social impacts. For example, concern has been expressed that the intrinsic value of social and environmental relationships centred on human rights or the value of a life should not be subject to commodification and any attempt at placing an arbitrary financial valuation is inappropriate (See Coulson et al., 2015).

Other initiatives on reporting social and environmental issues such as the Global Reporting Initiative (GRI) and the International Integrated Reporting Council (IIRC) do not restrict value to that which is determined financially or through quantification (See Coulson et al., 2015 on the IIRC and Gray et al., 2014). KPMG claim to “fully support” the work being done by the IIRC and others based on a desire “to achieve a standardized approach” (KPMG, 2014; 41). In terms of future direction, KPMG[6] aim to look beyond financial capital and “eventually adopt the same system” of multiple capital recognition as the IIRC (KPMG, 2014; 44).

The introduction of multiple capitals into the True Value methodology would require a critical shift from KPMG’s economic reasoning for financial valuation to a position which recognises socially determined intrinsic values of nature and people. As argued by Gleeson-White (2016; 282) “nature, humans and societies are living systems. They are not fungible”. She proposes that in order to respond to social and environmental crises capitalism must evolve and new corporations must account for different categories of wealth generation and multiple capitals with accountants playing a critical role in telling stories of intrinsic value as well as bean-counting of financial value.

At numerous points in their introductory text KPMG acknowledge the details of their methodology are provisional and their agenda for change is focused on providing “interventions recognised as a starting point for discussion” (KPMG, 2014a; 91). With this in mind, the extent to which the assumptions underpinning the practical calculation of producers are reasoned by KPMG and/or the producers applying the methodology should be careful determined, disclosed and transparent[7].

Thoughts on theoretical framing

Reflecting on a conceptual home for this methodology is challenging as KPMG’s intention to go beyond accounting for externalities is currently unclear. Research on internalisation of externalities is often theoretically framed around why internalisation is necessary and the rational for internalisation is justified by the need for corporate accountability beyond the market and its shareholders (See overviews from Bebbington et al., 2014; Gray et al., 2014; Baken, 2004). KPMG

[6] It is noteworthy that KPMG Netherlands have produced their own integrated report (See for example KPMG, 2014c)

[7] An investigation of the producer’s reports on this basis is considered to be outside the scope of this paper.

argue that a consideration of social and environmental externalities is necessary due to their potential material impact on earnings and risk to financial return. They further propose that the application of the methodology is part of an agenda for corporate change towards “a new vision of value in which corporate and societal value creation are fully aligned” (KPMG, 2014; 90). Their methodology is offered as a step towards alignment of corporate and social value creation. Ultimately, however, the application and furtherance of KPMG’s methodology remains at the discretion of the producer.

Those opposing accounting for externalities may argue there is no need to provide additional accounts of externalities as the market mechanism will incorporate what is necessary. For example, the commodification of carbon, an action arguably intended to manage climate change, means emissions are offset and carbon products traded now appear on the balance sheet. Even with a market price accounting for carbon remains the subject of varied practice and theoretical debate. Disagreements may form when assigning (or imputing) a value because there are different ways assignment may be made (See for example Bebbington and Larrinaga-González, 2008 on carbon and Milne, 1996 on valuation). KPMG’s methodology offers some guidance in this regard. Because choice of valuation methods are political and ultimately reflect the discretionary power of the producer it is important the assumptions and limitations inherent in the methods applied are transparent.

Accounting for the social impacts of companies, whether positive and negative, is not a new phenomenon. For example, Linowes (1972) Socio-Economic Operating Statement provides a seminal reference point on how to account for social improvements and detriments and link these to economic performance to form one statement. A critique of his social account raises the question of whose view of society he was taking, the corporation’s or society’s view. This is a common issue for producers of social accounts and different views are offered on whose position should dominate accounts. It highlights the need to explore whose view of social impact is presented in the application of the True Value methodology.

There have been many attempts since Linowes’s work to link social, environmental and economic value in one account where this question has been explored. For example, Full Cost Accounts[8] (Bebbington and Thomson, 2006; Bebbington et al., 2001), Total Impact Accounts (Mathews, 1984),

[8] Project Sigma a multi-sector partnership offering practical guidelines for full costing accounting and integration of sustainability into management thinking was launched in the UK in 1999 and remains a useful point of reference see http://www.projectsigma.co.uk/Toolkit/SIGMASustainabilityAccounting.pdf

One Report (Eccles and Krzus, 2010 and Sustainability Accounts[9] (Gray et al., 2014), among many others. Such views of one account compare to those who have argued for multiple accounts to recognise social and/or environmental impact and sustainability. Practical initiatives including the Triple Bottom Line approach (Elkington, 1997) and Global Reporting Initiative[10] have developed on this basis. The contributions and limitations of KPMG's methodology should be considered in light of a much broader body of work than other current initiatives in social and environment accounting and reporting.

KPMG give legitimacy to their method of evaluating material externalities by exploring three drivers of internalisation - regulation, stakeholders and the market. It is these drivers that are used to identify and value social interests. When applying the True Value methodology the producer needs to consider whose view of truth and value is recognised - their own corporate position, that of KPMG and/ or those of stakeholders. Distinctions on whose value is recognised should then be disclosed along with the results. The degree to which a corporation applying the methodology imposes its own views and, in particular, core values on social and environmental impact to operationalise the tools should be the subject of consideration and future empirical research enquiry.

KPMG recognise their methodology is shaped to suits individual corporate circumstances but follows the adage "what you can't measure, you can't manage" and recommends "a standardized approach to measure societal value creation" (KPMG, 2014a; 5). This fits with a view of value based on standard utility. A question which emerges from this position is - utility for whom? In the first instance this is a tool for management. This economic rationality reflected by the True Value methodology will be favoured by stakeholders who share the company's profit motive – shareholders and investors, others involved in the formal supply chain (some manufacturing, suppliers and customers). In this respect it may be used as an engagement tool with corporate stakeholders but - does it have utility for those who do not share this economic rationality? The question of utility also raises questions - how is the methodology reported and for whom?

Casting a further eye over the nature of producer reports on the application of the methodology, there are a number of different positions evident. Verdantix reporting on behalf of Holcim (parent to

[9] Creating accounts based on a holistic notion of sustainability centred on the core values of an organisation and its commitment and relationship to sustainable development. The result may vary considerably. Disclosures may range from economic units to ecological and/or social units and narratives.
[10] See GRI https://www.globalreporting.org/Information/about-gri/Pages/default.aspx

Ambuja) is distinctive as it claims it represents "social and environmental profit and loss accounting" (Holcim, 2015; 3) Views on the extent to which this is an exercise in social and environmental reporting as a stand-alone or supplementary report are likely to vary considerably and will depend on which theoretical lens is used to examine the report and reporting process and careful consideration of knowledge formed around the methodology and its findings. Further, such an explicit claim against income also raises the question - What is the impact of externalities on the balance sheet? The answer to which could be formed arguably with or without reference to multiple capitals (noted earlier).

A word of caution is offered to those companies applying the methodology and not disclosing its findings in some way. In the US, the attorney general recently pursued disclosure from Peasbody energy for information it had privately collected that was relevant to its shareholders and investors. In a follow up to this, a new action has been taken to investigate Exxon's knowledge of how climate adaptation may affect its business (See Timms, 2016; Krauss, 2015; and Reilly, 2015). In both cases emphasis is placed on implications of what is known for financial valuation of the company. If this methodology is employed by a company it arguably should be disclosed. The extent to which the corporation could be held accountable to other stakeholders is the subject for further debate and, in part, requires a return to the core values of the corporation and any ethical positioning on engagement recognised or inferred.

The following practical points for consideration are offered with this basis in mind and the opportunities and challenges this brings with it.

Practical points for consideration

KPMG (2014a) report outlines the step by step application of their methodology and illustrates its use with reference to three hypothetical businesses: a gold mine in South Africa, a brewery in India and a plastics plant (low-density polyethylene) in the US.

The three step process outlined by KPMG (2014a; 39) is as follows:

1. **Assess the company's 'true' earnings** by identifying and quantifying its material externalities.
2. **Understand future earnings at risk** by analysing exposure to the drivers of internalization.

3. **Create corporate and societal value** by developing business cases that capture value creation opportunities and reduce risk.

At a practical level, the inherent questions within step 1 (if not every step) to assess the company's true earning are - what to value and - how to put a financial value on an impact to find the 'true' value? By including economic value-add (wages and taxes) KPMG are drawing the economic account more widely than the financial account of economic profit (and considering the difference).

Determining and recognising impact is a contentious point and is likely to be the first point open to disagreement. Calculations are justified with reference to well established accounting principles and dependent on internal data availability. Considerable emphasis will be placed on the capabilities of management and financial accounting technologies to capture information and guide valuation. Contentions around determining impacts are further exacerbated by linkages within and between impacts. To ensure integrity of the findings, care should be taken not to conflate findings and add or subtract figures calculated on fundamentally different bases.

Legitimacy could be given to the process of calculation through stakeholder involvement in establishing - what is valued and how value is represented? Arguably what is a negative impact for one party may have a positive consequence on another so the question of trade-off between and within categorised externalities is an important issue for discussion and disclosure. Alternatively, prioritising stakeholder engagement would involve considering positions of power in relationships within and out-with the company and its stakeholders.

The considerations raised by quantification, namely: scope (of application to operations); materiality (to the company, its stakeholders, society and the environment); baseline (time period); and data (source relevance) are not mutually exclusive and need to be carefully considered (see for example Figge, 2005; Milne, 1996). These conditions may be exclusively determined by KPMG and/or the company applying the Methodology or involve various stakeholders in knowledge construction.

KPMG stress "the ultimate goal is to develop strategies that create both societal and corporate value" (KPMG, 2014; 44). The producer needs to question its fundamental position on its social and environmental relationships and how they create and reduce value. Exploring the company's power and influence throughout its supply chain and within the conception of its value chain is important here. Is putting a financial value on all impacts appropriate and morally acceptable? Moving to a multi-lensed approach to evaluating business impact may or may not mean a change in a position on monetization. Stakeholder theory and related research may be useful to consider here.

Conceiving a multiple capitals framework could be helpful at this early stage in the methodology to explore the intersections of actions and impacts on value creation and reduction. Conceiving of capitals broadly in terms of those owned and those controlled by the organizations and where decrements in one form of capital may be addressed through the mobilization of other forms of capital could add further depth to financial analysis and corporate decision making. There are a catalogue of integrated reports linked to the IIRC website[11] which could provide useful benchmarks for guiding practice and a number of research studies critiquing the integrated reporting process which may be useful to a producer or user (See for example Coulson et al., 2015; Gleeson-White, 2014; de Villiers et al., 2014).

The second step requires the producer to understand future earnings at risk. This involves taking the externalities identified in step 1 and calculating the likelihood of their internalisation (low, medium and high) based on the drivers – regulations and standards, stakeholder actions and market dynamics – and associated implication for revenues, costs and risk. The application of this step centres on - which drivers are included, how these are measured and the period of potential internalisation? The producer should consider the contribution stakeholders engagement could make at this point and how this may influence their view of potential internalisation - What is at risk? From what sources? How? Why? The decision on whether or not to include an adjusted balance sheet valuation should arguably be taken at this point at the latest. Ultimately, risk recognition under KPMG's guidance is through the impact of the market and regulations/legislation on financial performance. Stakeholders are recognised indirectly for their potential effect on the market and regulation. It is here the company's position on accountability - to whom and why - is of critical influence in shaping the first step when applying the methodology.

[11] http://integratedreporting.org/resource/emerging-integrated-reporting-database/

Insight into future priorities for linking financial performance and social and environmental impact are of particular interest to financial stakeholders. For example, praise is offered on the methodology by United Nations Principles for Responsible Investment Director of Policy and Research Helen Winch among others (See UNPRI, 2014). Stakeholder engagement in applying the methodology and their use of the findings should be carefully considered. To provide a 'True value' account it is important whose view of value creation is expressed and how this is formed. Transparency on whose conception of value is created is important to potential users. The implication of findings for financial capital maintenance and recognition of multiple capitals should be considered here. Identification of the company's degree of power and influence over capital/s in its supply chain and value chain is also an important consideration and recommended point of discussion and disclosure here. These relationships can be included with reference to the company's core value on engagement and evidence of the engagement process.

The third step is to create corporate and societal value by identifying potential investments which can deliver value creation either through reducing negative externalities and/or increasing positive externalities. Calculations involve quantifying the net present value of investments, including likely internalization of externalities. Future scenarios have been developed by KPMG to incorporate the influence of potential regulations, standards and stakeholder actions on market dynamics. Scenario assessment and predicting the future under conditions of uncertainty is inherently subjective. It is difficult, if not impossible to capture all predicted interactions in financial terms and using the same valuation basis. A critical question is what is an appropriate time scale? KPMG suggest adopting a 30 year time scale. Is this enough to consider a company's impact on current and future generations? Many questions spring to mind. Should the same time frame be applied to all impacts? What is an appropriate discount rate? What is the relevant time value of money? What role does the NPV calculation play in decision making? Care must be taken by the company applying the Methodology to understand the assumptions underpinning each scenario and be as transparent as possible on how decision are made from this basis.

Having identified the value of potential impacts and investments on the company and society, it is at this point that change can begin as a company identifies actions it can take to manage risk to revenue and social and environmental impact. This may include a company rethinking its core values to align actions to how corporate value is created and relationships with society and the environment are maintained. Strategic and operational goals including stakeholder relationships and engagement should be considered along with their intended impacts on society and the environment (See for example Coulson and Bonner, 2015 on the business case for introducing a living wage and Gray, 2010 on the importance of narratives).

A fourth step would ideally be what should be reported on, how, why and when? It should be founded on what purpose this methodology serves and how it fits the company's disclosure strategy. It is important that good news and bad news stories are reported along with the company's thoughts on, and reaction, to the findings. There is a long tradition of research on voluntary social and environmental reporting and practical examples given by a myriad of stand-alone social and/or environmental reports; 'one report' and most recently through integrated reports (Eccles and Krzus, 2010). Further, examples can be found on how to report on particular social issues such as human rights (See, for example, Cooper et al., 2011).

Discussion and Conclusion

How do we go forward in light of future uncertainty and, to use KPMG's term (KPMG, 2014a: 16), "interconnected systems of social and environmental megaforces"? We are faced with making decisions in the knowledge that a company has an impact on society and the environment that is currently largely unaccounted for in traditional accounting practice. A company can create and reduce value for society and the environment but 'value' recognition may be different for different people. The True Value methodology provides a way to formalise a corporate view of its material impact on the environment and society calculated within the limits of financial determinism. The practical application of the methodology as depicted by KPMG is transparent and provisional and offers one means to recognise a corporate view of accountability for social and environmental impacts which may serve as a starting for engagement and debate.

KMPG's True Value methodology offers a process to develop a business case to recognise and manage social and environmental impacts. Its focus is on providing help for its producers to put a financial value on the potential risk to future earnings (NPV) posed by current externalities being internalised. The framing of the methodology provides a market driven agenda for change centred on a corporate valuation of impact on society and the environment. Its encouragement to plan for the future is based on 30 year scenarios, encouraging a medium to long term approach, but its return to NPV highlights its use as an early warning system to manage risk. It provides a provisional starting point to recognise a gap between corporate responsibility and that which is currently accounted for. It is at the discretion of its producers to act in pursuit of financial value creation opportunities and reduce adverse environmental and social impacts with moral values in mind.

Primarily this is a tool for financial management by the owners of a company and its shareholders, investors, and economic policy makers. Producers of the methodology may disclose their position on social and environmental impacts as a starting point for engagement or seek to include stakeholders, in particular social and environmental representatives, in the design and application of the methodology to form a more inclusive and pluralist conception of risk and values for social and environmental impacts. It is from this position that innovation may arise and, for example, multiple capital considerations and intrinsic values may be recognised.

As a starting point for further research it is argued that the role of KPMG's True Value methodology is closely aligned to accounting for externalities. However, a conceptualisation of the methodology is far from clear and the contributions and limitations of KPMG's methodology need to be considered in light of a much broader body of work than other current initiatives in social and environment accounting and reporting. Further, specific challenges to KPMG's reduction of society and the environment to economic units come, for example, from Gray et al., (2010) who argue narratives are symbolic representations of value and Coulson et al.'s, (2015) who go beyond financial capital and explore framing of multiple capitals within integrated reporting.

One objective for research could be to investigate stakeholder engagement in the application of the methodology or with its findings (See the seminal work of Gray et al., 1997). A brief review of producers reports on the True Value methodology reveal different positions on stakeholder engagement. For example, Volvo Group (2015) approach to applying the True Value methodology is to build societal costs into its Total Cost of Ownership (of assets). To operationalise this they carried out with KPMG "a comprehensive stakeholder dialogue and materiality analysis" to identify and value socioeconomic and environmental impacts (Volvo, 2015; 3). Alternatively, Holcim/ Verdantix (2014; 4) appear to only place emphasis on internal stakeholders, including employee and management consultations perceptions of sustainability when applying the methodology but provide no evidence of engagement with the community or environmental representatives. In contrast, a report on NS Dutch railways by KPMG (2015; 1) recognises that quantifying the value NS creates for society is used as fact-based data for engagement with stakeholders presumably to provide an ex-post rationalisation of corporate determinations of impact and valuations. Given such apparent differences on stakeholder engagement, the extent to which this methodology finds a home in, for example, legitimacy theory or stakeholder theory offers a potential agenda for future research (See for example, Deakins, 2014 on legitimacy and stakeholder theory; and debate between Adams (2008); Bebbington et al., (2008) and Unerman (2008) on CSR, risk and stakeholder engagement). Researchers are also encouraged to use new theories to inquire about these new social accountings that are being recognised (O'Dwyer and Unerman, 2016; Gray et al., 2014; Unerman and Chapman, 2014; Gray, 2010).

An interesting question for further research is what difference does disclosure and transparency of the application of the True Value methodology make with respect to discharging accountability for externalities? In terms of governing the moral economy of risk management at a minimum the producer can be held to account for what they say they are doing or going to do (Power, 2007;92). It is important to consider corporate claims made when employing the methodology and the design and application of the methodology employed to substantiate this.

When applying the True Value methodology to scrutinise social and environmental externalities and their potential effect on future earnings the consequence that management action may result in more positive social and environmental impacts may easily become a by-product of risk management rather than an objective. Given recognition of the megaforces of society and the environment, it is on core corporate values and moral reasoning as opposed to economic reasoning that research and practice should arguably centre.

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