Accounting and reporting for long term value

Building a better working world

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Executive summary

It is time to rethink how we account and report on organisational performance.

To enable robust and insightful discussions with investors, executives need to explain how their organisations are creating long term value (LTV) for all of their material stakeholders. Recent developments — such as integrated reporting and the strategic report — have made incremental enhancements to the quality and usefulness of reporting. However, there is still a significant and increasing disconnect between current reporting and the drivers of long term value. Too often, reporting fails to capture information on intangible assets as drivers of organisational performance.

In this paper, we argue that there are four fundamental challenges for reporting. First, accounting profit and shareholder returns are disconnected. Profit is quick to recognise short term changes in revenues and costs, but does not account for investments made for the long term. This is putting pressure on organisations to deliver short term results. While this may be aligned to the interests of some investors, there are many who invest for the long term. Second, we often report the wrong things — measuring what is easy rather than what is right. This is particularly true of Intangibles, which now account for around 50% of the market value of many organisations. Third, the failure of organisations to address growing environmental, social and governance (ESG) pressures adequately is diminishing trust in organisations. These three challenges have resulted in regulators and legislators demanding that organisations release ever greater levels of detail about their performance, leading to the fourth challenge: over-burdensome regulation and increased demands for information resulting in reduced reporting clarity. If executives are to address these challenges, they will need to account for, and explain, organisational performance much more clearly and coherently.

In this paper we review attempts to improve measurement and reporting, identifying four broad categories of evolution to date:

1. the development of alternative measurement frameworks;
2. calls for the reporting of intangible assets;
3. the evolution of accounting standards, including the strategic report; and
4. integrated reporting.

While each of these efforts have made notable contributions, we argue that more needs to be done. Specifically we need a new approach to reporting that conforms to four solution requirements:

- Solution requirement 1: Develop reporting systems that provide insight into how organisations create value over the long term;
- Solution requirement 2: Communicate the value of strategic assets;
- Solution requirement 3: Provide multi-stakeholder reports that include a wider set of information relevant to stakeholders to rebuild trust; and
- Solution requirement 4: Simplify reporting.

We use these solution requirements to develop and propose a new model for reporting — the long term value model. We define long term value as *the value created for and perceived by stakeholders through the effective development, preservation and deployment of strategic assets in line with the organisation's stated purpose*. Our intention is to develop an approach to reporting long term value which:

- focuses on identifying and communicating how organisations create value in the long term for all of their material stakeholders;
- aligns this with the organisation's context and purpose, ensuring that the organisation is both realistic in its aspirations and trustworthy in its communications;
- reduces the regulatory burden of reporting by providing a structure that communicates the essence of the organisation without resorting to massive reports or regulations;
- utilises and provides assurance over new data sources to present a new view of the way the organisation creates value across multiple stakeholders; and
- builds on recent developments (most notably new concepts in reporting intangibles, strategic assets and integrated reporting).

We hope you find the ideas and discussion presented in this white paper stimulating and interesting, and that you will join us on this journey to create a better working world by enhancing the way organisations report and account for long term value.

Accounting behind the times: the endurance of centuries-old approaches

Accounting — whether for the purposes of internal management or external reporting — has a long and rich history dating back to ancient civilisations.

While early forms of accounting were relatively primitive, they served an important purpose — controlling exchange and ensuring that appropriate taxes and dues were paid. Indeed for early civilisations that operated without money, accounting records were the essential mechanisms for keeping track of commerce.

Luca Pacioli and the birth of modern accounting

For many historians, modern accounting began in the Renaissance period. In 1494, Luca Pacioli, a Franciscan friar, wrote a text called 'Summa de Arithmetica, Geometria, Proportioni et Proportionalita' (Everything About Arithmetic, Geometry and Proportions). Pacioli's text is the first to explain double-entry bookkeeping and earnt him the nickname 'The Father of Accounting'. So influential was his book that accountants gathered in San Sepulcro, Italy, to celebrate the 500th anniversary of its publication in 1994.

Of course, Pacioli did not invent double-entry bookkeeping; instead he documented the practices that had been developed by Italian merchants and that were being used in Venice at the time. The accounting system described by Pacioli includes many of the elements still used today. 'He described the use of journals and ledgers, and he warned that a person should not go to sleep at night until the debits equaled the credits' writes Murphy Smith in his book on Pacioli.[1] Pacioli's 'ledger included assets (including receivables and inventories), liabilities, capital, income, and expense accounts'.

Accounting moves on: the DuPont Pyramid of financial ratios

In his classic text 'The Visible Hand', Alfred Chandler, an influential business historian, wrote about how the three DuPont cousins struggled to decide how to allocate capital across their different businesses in the USA in the early 20th century.

To make better capital allocation decisions, the brothers developed, with Donaldson Brown, the DuPont pyramid of financial ratios[2] (see Figure 1). When Brown left DuPont and joined General Motors he took the pyramid of financial ratios with him and from there the pyramid spread as a standard accounting methodology across the globe.

Chandler dates this development to 1912, claiming that many of the management accounting methodologies in widespread use by the 1970s were already fixed by the early 20th century.

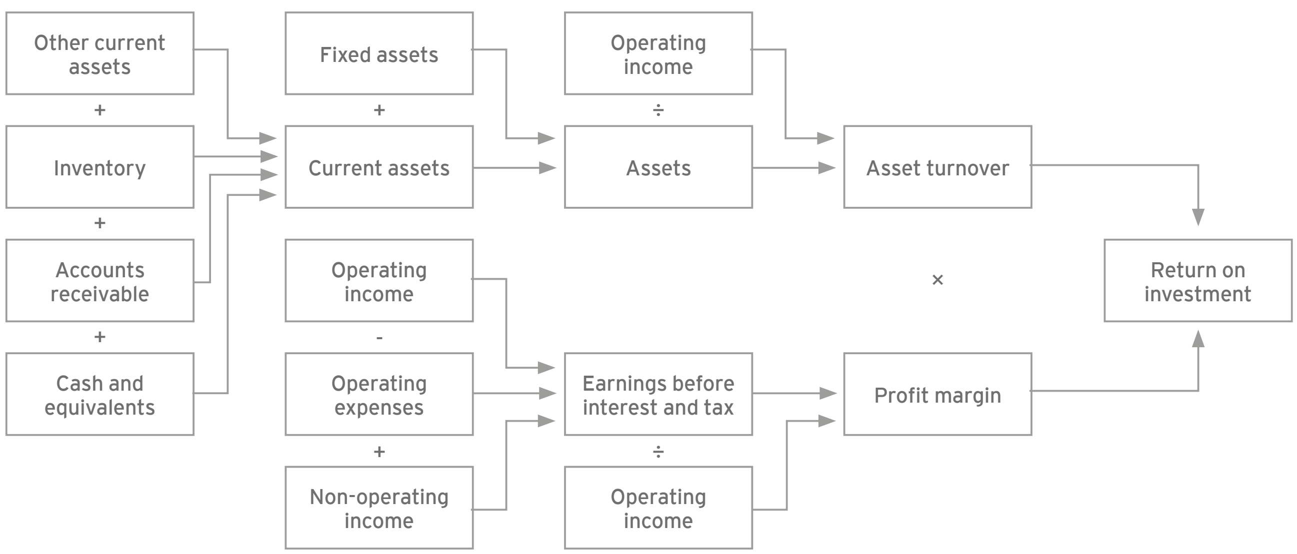


Figure 1: The DuPont Pyramid of Financial Ratios

[1] Murphy Smith (2013) "Luca Pacioli: The Father of Accounting", available at SSRN: http://ssrn.com/abstract=2320658.
[2] Alfred D. Chandler, Jr. (1977) "The Visible Hand: The Managerial Revolution in American Business", Cambridge, MA, Harvard Belknap.

Accounting in the 1970s and 1980s: relevance lost?

The 1980s saw growing concerns about the relevance of accounting and reporting systems. H Thomas Johnson and Bob Kaplan (the latter of activity-based costing and balanced scorecard fame) produced a devastating critique of management accounting in their 1987 text 'Relevance Lost'.[3] In essence their argument was that management accounting had not kept pace with the changing nature of business and, as a consequence, was losing its relevance. Not only that, the growing disconnect between accounting practices and organisational value was also damaging the long term success of organisations.

Hayes and Abernathy picked up the same theme in their provocatively entitled Harvard Business Review article: 'Managing our way to Economic Decline'. Their hypothesis was that American managers were frequently driven to make short term decisions aimed at improving the balance sheet today, while sacrificing long term competitive success in the process.[4]

Hayes and Abernathy's original 1980 article was republished in 2007. Despite writing that some of the issues raised in the original article had been addressed, the authors still argued that short termism continues to pervade US management thinking, partly as a result of poor company reporting.[5]

The end of accounting? The relevancy challenge in the 21st century

The theme of accounting relevancy continues to be discussed today. Baruch Lev, in his most recent book, 'The End of Accounting',[6] describes the tenacity of established accounting principles in the face of rapidly changing social and economic conditions and business models. He uses the case of United States Steel Corporation to illustrate how little has changed in the field of management accounting over the last 100 years.

Figures 2 and 3 to the right show United States Steel's consolidated income statement and balance sheet in 1902 and 2012. As Lev points out, the fundamental similarity (in terms of both the report's structure and contents) is remarkable.[7]

We could continue to review evidence relating to the endurance of accounting systems and practices, but the overwhelming conclusion is clear. Many of the basic principles and structures that we use today — both for internal and external reporting — were established over 100 years ago.

This begs the question — how do traditional accounting and reporting approaches need to evolve given today's world?

	In $ million	
Year	**1902**	**2012**
Sales	560	19,328
Cost of sales	-411	18,291
Gross profit	**149**	**1,037**
Minus expenses:		
Selling & general expenses	-13	-654
Other gains/losses	5	-136
Interest income	3	7
Interest expense	-9	-247
Income tax	-2	-131
Net income/loss	**133**	**-124**

Figure 2: United States Steel Corporation's Consolidated Income Statement[8]

Accounting and reporting systems have proved remarkably stable and enduring despite repeated calls for their overhaul.

	In $ million	
Year	**1902**	**2012**
Assets		
Current Assets		
Cash & equivalent	56	570
Net receivables	49	2,090
Inventories	104	2,503
Other current assets	5	211
Total Current Assets	**214**	**5,374**
Investments	4	609
Property, plant & equipment	1,325	6,408
Intangibles	0	253
Goodwill	0	1,822
Other non-recurrent assets	4	751
Sub Total	**1,333**	**9,843**
Total Assets	**1,547**	**15,217**
Liabilities		
Current liabilities		
Accounts payable	19	1,800
Payroll payable	4	977
Accrued taxes	1	146
Other current liabilities	26	67
Total current liabilities	**50**	**2,990**
Long term debt	371	3936
Employee benefits	0	4416
Other non-recurrent liabilities	30	397
Sub Total	**401**	**8,749**
Total liabilities	**451**	**11,739**
Shareholders' Equity		
Common stock	1,018	3,282
Retained earnings	78	196
Total shareholders' equity	**1,096**	**3,478**
Total liabilities and equity	**1,547**	**15,217**

Figure 3: United States Steel Corporation's Balance Sheet[9]

[3] Johnson, H.T. and Kaplan, R.S. (1987) "Relevance Lost – The Rise and Fall of Management Accounting", Harvard Business School Press, Boston, MA.
[4] Hayes, R.H. and Abernathy, W.J. (1980) "Managing our Way to Economic Decline", Harvard Business Review, July-August, pp. 67-77.
[5] See editor's comment on Hayes, R.H. and Abernathy, W.J. (2007) 'Managing our Way to Economic Decline', Harvard Business Review, July-August, pp. 138-149.
[6] Baruch Lev and Feng Gu (2016) 'The End of Accounting and the Path Forward for Investors and Managers', Wiley, New York.
[7] Ibid., pp.1-5.
[8] Ibid., pp.1-5.
[9] Ibid., pp.1-5.

Fundamental challenges for accounting and reporting

Today, organisations operate in a fast changing, technologically-enabled business environment. Global mega-trends have created seismic shifts in the way businesses operate. This is driving a, now widely recognised, disconnect between market value and book value.

Most industries show that intangible value typically represents more than 50% of market value: value that is rarely reported or communicated to investors and other stakeholders.

We have seen the third industrial revolution, which resulted in multi-channel, real-time customer transactions and a host of new business models. We are now witnessing the fourth industrial revolution — characterised by hyper-connectivity, data-informed decision-making, and automation — which is disrupting and reshaping entire industries. Additionally, globalisation, externalities such as climate change and calls for inclusive capitalism are leading to new operating challenges and requirements.

In this fast-changing business environment, organisations have to be able to define, manage and communicate their purpose and strategy effectively for deploying both tangible and intangible assets to create value in the long term. Strong risk mitigation strategies are also needed to minimise the impact of a host of other macro-trends, from increasing income differentials and consolidation of wealth to social unrest and political upheaval.

In view of the fact that the operating context and the business models organisations use have changed significantly in the last decade, we now need to question whether accounting principles and practices defined 100 years ago are still fit for purpose today.

Key arguments include:

- The ongoing concern about short termism: are organisations and investors striking the right balance between capturing short term value (value extraction) and creating long term value;
- Organisations now have a remit to benefit local and global communities as well as existing to create monetary value for their shareholders; and
- There has been a reduction of trust in organisations based on well-publicised stories of corporate misdemeanours and the consequences for customers and employees.

To begin to understand how the accounting and audit industry can better support organisations in their quest to measure and report LTV effectively, we need to explore the key challenges for traditional accounting and reporting approaches.

Key challenges for accounting and reporting

Several challenges are negatively impacting the comprehensiveness, veracity, and perceived value of current measurement and reporting approaches. These range from the growing divide between 'book value' and shareholder returns, to the lack of a clear framework and language for communicating the value of long term investments.

Challenge 1:

The timelines associated with accounting profit and shareholder returns are disconnected

Starting with the basic structure of accounting, the first challenge is that profit and shareholder returns are increasingly disconnected. This is due to the fact that profit is a short term value indicator, while shareholder returns accrue over the long term.

These different timescales pose a fundamental challenge for accounting and reporting. Merchant and Sandino (2009) argue that changes in annual accounting profit measures explain only 2-10% of changes in annual shareholder returns. In essence, profit is simply not well correlated with shareholder returns.[9]

This issue is caused by shortcomings in existing accounting approaches,[10] such as:

- The inability of profit reports to take account of future revenue or expenses, or to measure long term value creation effectively, focusing instead

[9] Merchant, K.A. and Sandino, T. (2009) 'Four options for Measuring Value Creation', Journal of Accountancy, August, pp. 34-37.
[10] Ibid, pp.34-37.

on the past — i.e., what has already happened. This co-mingling of operating cost with different forms of business investment within profitability obscures an understanding of how well an organisation is investing to maintain long term competitive advantage;

- The inability of profit reports to measure and communicate the positive impacts of investments in intangible assets and value-creation initiatives (profit records show only the costs associated with LTV initiatives — not the value generated by them). For example, investments in making future cash flows more certain would be seen to increase a company's operating costs, without taking account of the value in terms of reduced cash flow risks; and
- The fact that current accounting measures ignore the cost of equity capital, which can be much more significant than the cost of debt capital.

The cumulative effects of these failings pervade capital markets and company decision-making. As companies are less and less able to articulate the importance of long term investments to sustain their competitive advantage, some investors are placing greater emphasis on the certainty of shorter-term profitability measures. Responding to the information signals provided, this can result in the overall market discounting those long dated cash flows excessively, as highlighted by the Bank of England.[11]

There are many documented cases of investors accusing senior managers of short term thinking, and vice versa. In its original 'Tomorrow's Company Inquiry', the Royal Society of Arts, Manufactures and Commerce (RSA) coined the phrase 'dialogue of the death' to describe the ongoing accusations between executives and investors.

Executives complained that investors were only interested in short term results. Investors complained that executives were only interested in talking about short term results. Both parties blamed the other — saying "What we'd really like to talk about is long term strategy".

The focus on accounting profit is putting pressure on organisations to deliver short term results.

In a recent report, Tomorrow's Company returned to this theme, focusing on the role of shareholders and highlighting that organisations are being squeezed and forced to 'focus on short term financial outcomes… because [of] pressures to return cash to shareholders and cut prices for customers'.[12] McKinsey reached a similar conclusion in a 2013 survey which found that just under half (47%) of business leaders claimed that boards of directors were the primary source of pressure for short term results, with a further 20% claiming that investors were the primary source of pressure.[13]

We argue that both were responding to the economic signals that resulted from the fundamental failings of reporting. Taken together, this melting pot of obscured information contributes to a culture of short termism, with real implications for capital allocation across the economy at an investor and organisation level.

The focus on accounting profit is putting pressure on organisations to deliver short term results.

Challenge 2:

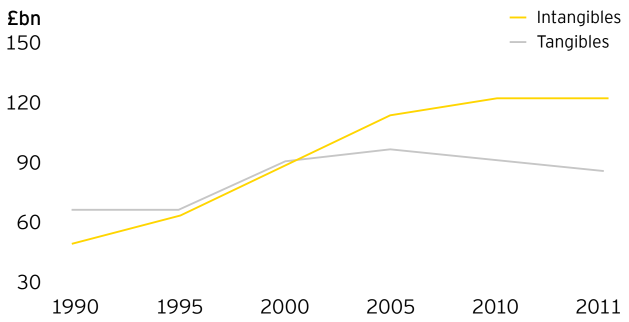
Too often we are measuring and reporting the wrong things

While the basic structure of reporting impedes the necessary understanding of business investment, this is compounded by the speed at which the nature of value is changing. Around 50% of an organisation's value is now attributed to intangible assets and resources. However, accounting systems continue to measure only things that can be more readily measured in an organisation: typically tangible assets that are reported on the balance sheet.

The lack of focus on this issue is in sharp contrast to the increasing significance of intangibles to the functioning of the economy. Research by NESTA estimates that between 1990 and 2011, the value of intangible assets in the UK grew from £50.2bn to £137.5bn, while at the same time the value of tangible, physical assets has increased much more slowly from £72.1bn to £89.8bn.[14] Other research is showing that business investment in intangible assets will soon be 50% higher than investment in tangibles.[15]

Research by the OECD[16] also points to growing business investment in knowledge-based capital over the long term when compared to other traditional forms of capital. In the UK, investment in knowledge-based capital grew throughout the 1990s, before dipping in the 2000s, while investment in tangible assets fell sharply over the period. By 2009, the OECD finds that business investment in knowledge-based capital was 34% higher than tangible investments.

[11] The Bank of England. The Short Long. Speech by Andrew G Haldane, Executive Director, Financial Stability, and Richard Davies. May 2011.
[12] Tomorrow's Company (2016) "UK Business: What's Wrong? Where Next?", Tomorrow's Company, London.
[13] See McKinsey Focusing Capital on the Long Term initiative – www.fcltglobal.org.
[14] Nesta (2015) UK Investment in Intangible Assets: Report for Nesta. 'Nesta Working Paper No. 12/02'.
[15] W. Hutton (2014) 'As investment Becomes Ever More Intangible, Business Has to Navigate Some Choppy Waters to Survive'. Work. Winter: p11.
[16] OECD (2013) 'Supporting investment in knowledge capital, growth and innovation'. OECD Publishing.



Source: Nesta Innovation Index 2014

Figure 4: Investments in tangible vs. intangible assets in the UK (1990 – 2011)

By failing to take account of the value of intangible assets, traditional reporting approaches are falling short when it comes to reporting the value-creating capacity within an organisation. This, at least in part, explains the growing disconnect between market capitalisation and book value. It also undermines the perceived accuracy of, and confidence in, the reporting process.

Measuring the right things — even if they're harder to measure

The only way to address this challenge effectively is to measure the right things, even if it's difficult to do so. As a starting point, this requires us to broaden the dimensions of performance that are considered in our existing accounting and reporting systems.

By taking this approach, we can begin to measure, and report, intangible value in organisations, including:

- Long term value creation for different stakeholders across the organisation;
- Returns on investment for long term value initiatives as well as shorter term initiatives, which increases visibility of operational performance and allows it to be communicated to investors and other stakeholders effectively; and
- The current value, and likely future value, of a host of intangible assets, from intellectual property and technology skills, to stakeholder connections, corporate reputation and customer sentiment.

Too often accounting and reporting systems do not reflect the true drivers of long term value creation.

Challenge 3:

The failure of organisations to address growing environmental, social and governance (ESG) pressures adequately is diminishing trust in organisations

This change in the nature of value is also being driven by increasing awareness and understanding of the ESG risks and opportunities that face organisations. As ESG factors become increasingly material to organisational performance, investors are pushing for better disclosure of these risks and the way that organisations manage them. In addition, and in parallel, government and industry regulations require organisations to report on minimum disclosure standards for ESG factors.

While investors and regulators are driving the ESG reporting agenda, the organisations themselves also understand that perceptions of value among other stakeholders is important. As a result, they need an effective mechanism by which to demonstrate their responsible behaviour actively across all aspects of their operations.

These stakeholder pressures mean that increasing numbers of organisations are reporting on their ESG performance and acknowledging its importance for reputation and ongoing success. In the case of chemical processing and electronics organisations, for example, water or rare earth metal shortages can have a significant impact on future business performance. Being transparent, both about these resources dependencies, and about strategies for coping with them, is now critical to creating confidence in these types of organisations.

As a result of organisations not adequately addressing this issue, we are seeing evidence of a deeper and more endemic issue – the lack of trust in organisations and those who lead them. The subtitle of the recent Tomorrow's Company report is 'Creating value for shareholders and society through a focus on purpose, values, relationships and the long term'.[17] This theme of purpose – and creating value for multiple stakeholders – is increasingly important in the context of income differentials and civil unrest, raising questions for traditional forms of capitalism.

Many organisations are now exploring how best to regain trust through improved understanding and disclosure of how they contribute to different stakeholders and, ultimately, how they derive their licence to operate through a more inclusive form of capitalism.

Accounting and reporting systems need to support executives in their quest to create long term value for stakeholders, both inside and outside the organisation.

[17] Tomorrow's Company (2016) 'UK Business: What's Wrong? Where Next?', Tomorrow's Company, London.

Challenge 4:

Over-burdensome regulation and increased information demands reduce reporting clarity

This combination of challenges – a conflation of short term profit with business investments, the changing nature of value across the economy and increasing focus on ESG issues – has so far been approached in a fragmented way, with increasing and varied demands on disclosure.

Repeated attempts to improve the coverage of information disclosure has only succeeded in increasing the volume and complexity of reporting standards, resulting in an over-burdensome reporting system. In the same way, attempts to meet the growing ESG information requirements have not always resulted in the disclosure of material factors, further obscuring and complicating reporting.

The overall response has been more and more regulation and standardisation within the existing system of accounting, without a fundamental re-think of how value is measured and communicated. As a result of these changes, corporate reports can now run to hundreds of pages, with endless footnotes. Rather than enhancing clarity and transparency, the regulatory framework has made financial reports increasingly oblique and difficult to understand, leading to more scepticism among stakeholders and investors. A common response from investors is: "what is the organisation trying to hide in this complex sets of reports and accounts?"

In our efforts to enhance clarity and transparency we have created over-burdensome reporting standards that have reduced clarity and transparency.

Defining the annual report

The Financial Reporting Council defines the purpose of the annual report as providing shareholders with relevant information that is useful for making resource allocation decisions and assessing the directors' stewardship. Making this assessment requires good flow of information and insight which allows individuals to understand:

1. how organisations are creating and capturing value;
2. what their strategic imperatives are;
3. whether they are managing risks and key assets appropriately; and
4. whether they are behaving ethically and appropriately.

In essence, the role of performance information is to allow people to be held to account for their behaviours and actions, as well as to provide insight into what organisations need to change in the future.

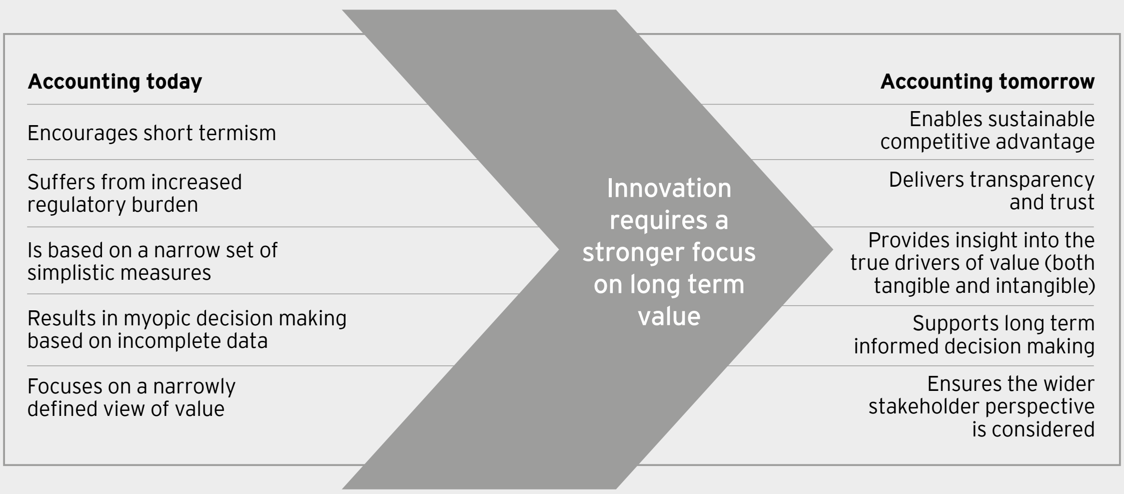


Figure 5: The shortcomings of accounting and reporting today

The proposed solutions to these accounting and reporting challenges so far

The Accounting Standards Steering Committee issued the first accounting standards in 1971.

Since that time, there have been four broad categories of responses to the challenges facing accounting and reporting. These are:

1. The development of alternative measurement frameworks;
2. Calls for the reporting of intangible assets
3. The evolution of accounting standards, including the strategic report; and
4. Integrated reporting.

In this section of the paper, we will explore each of these responses in turn and assess their effectiveness in terms of overcoming current accounting and reporting challenges.

1. The development of alternative measurement frameworks

The first wave of development — alternative measurement frameworks — can be traced back to at least the 1950s. Underlying these alternative frameworks are three enduring challenges of measurement:

a. The desire to quantify: executives constantly introduce new metrics in their quest to measure and report organisational performance;

b. Unanticipated consequences of measurement: individuals within organisations respond to the measures, sometimes changing their behaviours in dysfunctional ways; and

c. The search for balance: to offset the dysfunctional consequences of measurement, executives search for balanced measurement systems that force people to manage trade-offs between different dimensions of performance.

While these concepts have been around since the 1950s, they also feature in today's literature about measurement.[18] The first ever edition of the Administrative Science Quarterly, published in 1956, featured a paper entitled 'Dysfunctional Consequences of Measurement'. In that paper, Ridgway explored the relative strengths and weaknesses of single, multiple and aggregated performance measures, bemoaning the 'strong tendency to state numerically as many as possible of the variables with which management must deal.' A few years earlier, Chris Argyris, in his classic text, 'The Impact of Budgets on People', reported that managers claimed to 'feed machines all the easy orders at the end of the month to meet [their] quota.'[20]

These two themes – the desire to quantify and the unanticipated consequences of measurement led Peter Drucker to argue that one potential solution was to introduce 'balanced' sets of measures. 'Market standing, innovation, productivity, physical and financial resources, profitability, manager performance and development, worker performance and attitude, and public responsibility' are appropriate performance criteria, says Drucker in his 1954 publication, 'The Practice of Management'.[20]

Fast-forward to the 1990s: the balanced scorecard

Undoubtedly the most popular and widely implemented alternative management framework is still the balanced scorecard. Originated in the early 1990s, the balanced scorecard has evolved from a measurement framework designed to supplement financial measures,[21] to a performance management system designed to support the execution of strategy.[22]

While the balanced scorecard has been very focused on a limited set of stakeholders — most notably shareholders and customers — other measurement frameworks have taken a broader perspective. The Performance Prism, for example, is a stakeholder-orientated framework, which distinguishes between the wants and needs of stakeholders (i.e., how organisations create value for stakeholders), and the contribution of stakeholders (what organisations want from their stakeholders).[23]

The advantage of the Performance Prism is that it considers all of the stakeholders that organisations interact with and how they perceive value.

It also recognises that an organisation's relationship with stakeholders, like all relationships, is two-way. Organisations want certain things from their stakeholders and vice versa, and creating value requires both parties to be satisfied by the result of the relationship.

[18] Ridgway, V.F. (1956) 'Dysfunctional Consequences of Performance Measurements', Administrative Science Quarterly, 1, 2, pp. 240-7.
[19] Argyris, C. (1952) 'The Impact of Budgets on People', Controllership Foundation, New York.
[20] Drucker, P. (1954) 'The Practice of Management', Harper, New York.
[21] Kaplan, R.S. and Norton, D.P. (1992) 'The Balanced Scorecard: Measures that Drive Performance', Harvard Business Review, January-February, pp. 71-9.
[22] Kaplan, R.S. and Norton, D.P. (2008) 'The Execution Premium', Harvard Business School Press, Boston.
[23] Neely, A.D., Adams, C. and Kennerley, M. (2002) 'The Performance Prism: The Scorecard for Measuring and Managing Stakeholder Relationships', Financial Times/Prentice Hall, London.

Variations on a theme: the broader spectrum of alternative measurement frameworks

There are a range of other performance frameworks beyond the balanced scorecard and the performance prism. Each of them identifies different dimensions of performance needed to assess organisational value effectively. Key frameworks to note include:

- The Performance Measurement Matrix — a framework built around two dimensions: (i) cost/non-cost; (ii) internal/external;[24]
- The results-determinants matrix — this framework differentiates between end results (financial performance and competitiveness) and determinants of those results (quality, flexibility, resource utilisation and innovation);[25]
- The performance pyramid — this framework seeks to integrate horizontal work flows with hierarchical structures of measurement. It ranges from vision through market and financial measures, processing measures such as quality, delivery, cycle time and waste;[26] and
- The input-process-output-outcome model — this adopts a process perspective, making an important distinction between 'outputs' and 'outcomes'. This approach has particular resonance in the public sector.[27]

2. Methodologies for reporting intangibles

Towards the end of the 20th century, attention shifted to developing new methodologies for reporting intangible value in organisations. The early measurement frameworks concerned with this topic — developed through the 1980s and 1990s — recognised that solely focusing on financial measures could lead to short termism.[28] As a continuation of this work, a second wave of measurement frameworks was created, mostly linked to the quality movement of the 1990s and 2000s — notably the EFQM Business Excellence Awards and the Baldrige Award.

The third wave of measurement frameworks — popular through the late 1990s and into the 2000s — were associated with intellectual capital and the rise of intangible assets. As stock market valuations began to move away from physical asset valuations, a range of authors proposed measurement frameworks for thinking about intellectual capital, for example:

- The Skandia Navigator — which was driven by the need to measure intellectual capital, used 164 metrics (91 based on intellectual capital and 73 on more traditional metrics). It evaluated value across five key areas: (1) financial; (2) customer; (3) process; (4) renewal and development; and (5) human;[29]
- The Intellectual Capital (IC) Index — which sought to establish a single index of intellectual capital using three sub-dimensions: (1) human capital; (2) organisational capital; and (3) relational capital;[30] and
- The intangible asset monitor — which sought to break down market value of an organisation's stock into its constituent components: namely tangible and intangible assets. The intangible assets are further broken down into external structure indicators, internal structure indicators and competence indicators for each individual in the organisation.[31]

3. Introducing the strategic report

While alternative measurement systems and methodologies for reporting intangible assets provide useful frameworks for identifying individual metrics, they don't necessarily make the connection between value and the organisation's strategy. As a consequence, a third stream of activity has emerged — that of 'narrative' or 'strategic' reporting.

Building on work completed through the Operating and Financial Review (OFR), the Financial Reporting Council released guidance on the strategic report in June 2014. It stated that 'the purpose of the strategic report is to provide a company's shareholders with a holistic and meaningful picture of a company's business model, strategy, development, performance, position and future prospects'.[32] The intention is to provide a balanced narrative that complements the annual report and which allows the organisation to tell its story. Based on this concept, organisations have been invited to rethink the first half of their traditional annual reports, replacing the business review with a strategic report focusing on strategy and resources.

[24] Keegan, D.P., Eiler, R.G. and Jones, C.R. (1989) 'Are your Performance Measures Obsolete?', Management Accounting, June, pp. 45-50.
[25] Fitzgerald, L., Johnston, R., Brignall, S., Silvestro, R. and Voss, C. (1991) 'Performance Measurement in Service Business', CIMA, London.
[26] Lynch, R.L. and Cross, K.F. (1991) 'Measure Up: The Essential Guide to Measuring Business Performance', Mandarin, London.
[27] Brown, M. (1996) 'Keeping Score: Using the Right Metrics to Drive World Class Performance', Quality Resources, New York.
[28] Johnson, H.T. and Kaplan, R.S. (1987) 'Relevance Lost – The Rise and Fall of Management Accounting', Harvard Business School Press, Boston, MA.
[29] Edvinsson, L. and Malone, M.S. (1997) "Intellectual Capital: Realizing your Company's True Value by Finding Its Hidden Brainpower", Harper Business, New York.
[30] Roos, J., Roos, G., Dragonetti, N.C., and Edvinsson, L. (1997) "Intellectual Capital: Navigating in the New Business Landscape", Macmillan, London.
[31] Sveiby, K.E. (1997) "The Intangible Assets Monitor", Journal of Human Resource Costing & Accounting, 2, 1, Spring, pp. 73-97.
[32] See www.frc.org.uk/Our-Work/Codes-Standards/Accounting-and-Reporting-Policy/Clear-and-Concise-Reporting/Narrative-Reporting/Guidance-on-the-Strategic-Report.aspx.

What is in a 'strategic' report?

The guidance from the Financial Reporting Council states that strategic reports should include:

- A description of the organisation's strategy and the objectives it intends to achieve;
- A description of the strategy to be used for achieving these objectives;
- Information on relevant key performance indicators – linked directly to the principal risks the organisation faces;
- A description of the organisation's business model – setting out how the organisation generates or preserves value over the longer term and how it captures value;
- A description of the business model which provides shareholders with a high level understanding of how the entity is structured, the markets in which it operates, and how the entity engages with those markets (e.g., what part of the value chain it operates in, its main products, services, customers and its distribution methods);
- The business environment – commentary on the main trends and factors likely to affect the future development, performance or position of the business;
- A description of the organisation's major markets and its competitive position within them; and
- Broader information about: (a) environmental matters (including the impact of the business of the entity on the environment); (b) the entity's employees; and (c) social, community and human rights issues.[33]

The framework provided by the strategic report is a powerful and comprehensive one. It requires organisations to reflect a more strategic view of their business, and to provide new information on performance and future prospects. This is a potentially valuable development, especially for shareholders seeking deeper insight into the strategic direction of organisations. The challenge, of course, is how strategic reports are prepared, and whether they delve into the business model of the organisation, as opposed to seeking to present the organisation in the best light possible. These questions remain despite the FRC having introduced requirements for 'Fair, Balanced and Understandable' reporting on a comply-or-explain basis.

4. Integrated reporting

While the strategic report provides a framework for narrative reporting, integrated reporting provides a more structured set of categories that organisations can report against. Developed by a coalition of regulators, investors, companies, standard setters, the accounting profession and NGOs, the integrated reporting framework is structured around six capitals. These are designed to 'explain to providers of financial capital how an organisation creates value over time'.[34]

In defining an integrated report, the International Integrated Reporting Council (IIRC) says: 'An integrated report is a concise communication about how an organisation's strategy, governance, performance and prospects, in the context of its external environment, lead to the creation of value over the short, medium and long term'.

[33] Financial Reporting Council (2014) 'Guidance on the Strategic Report', The Financial Reporting Council, London.
[34] International Integrated Reporting Council (2013) "The International IR Framework", International Integrated Reporting Council, London.

The six integrated reporting capitals

The six capitals at the core of the integrated reporting framework are:

1. **Financial capital** – the pool of funds that is:
   - available to an organisation for use in the production of goods or the provision of services; and
   - obtained through financing, such as debt, equity or grants, or generated through operations or investments.

2. **Manufactured capital** – manufactured physical objects (as distinct from natural physical objects) that are available to an organisation for use in the production of goods or the provision of services, including:
   - Buildings;
   - Equipment; and
   - infrastructure (such as roads, ports, bridges, and waste and water treatment plants).

   Manufactured capital is often created by other organisations, but includes assets manufactured by the reporting organisation for sale or for its own use.

3. **Intellectual capital** – organisational, knowledge-based intangibles, including:
   - intellectual property, such as patents, copyrights, software, rights and licences; and
   - 'organisational capital' such as tacit knowledge, systems, procedures and protocols.

4. **Human capital** – people's competencies, capabilities and experience, and their motivations to innovate, including their:
   - alignment with and support for an organisation's governance framework, risk management approach, and ethical values;
   - ability to understand, develop and implement an organisation's strategy; and
   - loyalties and motivations for improving processes, goods and services, including their ability to lead, manage and collaborate.

5. **Social and relationship capital** – the institutions and the relationships within and between communities, groups of stakeholders and other networks, and the ability to share information to enhance individual and collective well-being. Social and relationship capital includes:
   - shared norms, and common values and behaviours;
   - key stakeholder relationships, and an organisation's willingness to trust and engage with external stakeholders;
   - intangibles associated with the brand and reputation that an organisation has developed; and
   - an organisation's social licence to operate.

6. **Natural capital** – all renewable and non-renewable environmental resources and processes that provide goods or services that support the past, current or future prosperity of an organisation. These include:
   - air, water, land, minerals and forests; and
   - biodiversity and eco-system health.[35]

[35] International Integrated Reporting Council (2013), 'The International IR Framework', International Integrated Reporting Council, London.

The IIRC has proposed guidelines for preparing integrated reports, covering:

(a) strategic focus and future orientation

(b) connectivity of information

(c) stakeholder relationships

(d) materiality

(e) conciseness

(f) reliability and completeness, and

(g) consistency and comparability

As with the strategic report, if used appropriately, the integrated report provides a valuable framework for documenting and explaining the focus and strategy of the organisation. However, inconsistent implementation, a lack of focus on strategic assets and outcomes, the complexity of the reports and insufficient assurance have had a negative impact on the usefulness of this model. As a result, investor-grade metrics for intangible strategic assets, such as social and environmental responsibility, remain largely unavailable to investors and other stakeholders.

Based on what we have learned and the responses to date, how could a new solution better meet the demands of accounting and reporting?

Clearly the four sets of responses outlined above have helped organisations to make progress in their quest to measure and report effectively. They provide more balanced sets of measures that begin to acknowledge the importance of intangibles and they create a link between strategy and the fundamental assets or capitals that organisations rely on to sustain competitive advantage.

The accounting profession has an important opportunity to take up the mantle, build on the platform that recent initiatives have created and experiment with new approaches. Such new approaches would have to address the shortcomings of developments to date, as well as the four challenges previously outlined.

"Accounting must evolve to keep pace with the global landscape and the demands of our stakeholders to provide assurance in a changing world. Coupling all of this with the explosion of data, the technological advancements, climate change and the macroeconomic shifts, we have reached an inflection point and the time to innovate is now."[36]

1. The timelines associated with accounting profit and shareholder returns are disconnected. This is putting pressure on organisations to deliver short term results.

Investors with Assets Under Management (AUM) of greater than $14 trillion are calling for a longer term perspective on capital allocation.[37]

A critical issue is that accounting and reporting systems generally report what has already happened, providing only hindsight. However, what investors and executives really need are systems that provide insight, such as: Where have investments been made? How are they consistent with the strategy? How will they impact future performance? Central to providing this insight is the ability to understand an organisation's strategic direction and, particularly, the strategic assets that will enable the organisation to increase its performance in the future. This requires a broader reporting framework that is able to derive investor-grade metrics for stakeholder outcomes, and the resources to preserve, deploy and create strategic assets.

Solution requirement 1: Develop reporting systems that provide insight into how organisations create value over the long term.

2. Too often we are measuring and reporting the wrong things.

Recent developments in accounting and reporting have not fully addressed the challenge of measuring and reporting the value of intangible assets. As a result, there is still a significant discrepancy between market capitalisation and reported assets (around 2:1). This means that around 50% of the market capitalisation is effectively unaccounted for, creating a skewed view of an organisation's ability to create long term value.

Methods of reporting intangible assets are still weak.

Economic theory sees organisations as bundles of resources that are used in a coordinated manner to create competitive advantage and, therefore, sustainable value. By having resources that are valuable, rare, inimitable and non-substitutable (VRIN),

[36] Hywel Ball, Managing Partner, Assurance, EY.
[37] See: https://www.ft.com/content/3e6a1b90-c8fb-11e5-be0b-b7ece4e953a0.

an organisation is able to create and sustain competitive advantage.[38] VRIN resources are:

- Valuable – resources that enable an organisation to implement strategies that improve the organisation's efficiency and effectiveness;
- Rare – resources that are not widely available in particular markets or to particular organisations;
- Imperfectly imitable – resources that are difficult to imitate and able to create sustainable competitive advantage; and
- Non-substitutable – resources that cannot be replaced by other available resources.

To understand the likely future direction and performance of an organisation, investors and executives need improved information on all of the VRIN resources available. Often these resources are intangible in nature but are largely ignored in traditional reports. This is exacerbating the disconnect between investor and management viewpoints.

Many organisations are concerned that by revealing detailed information in their annual reports about their strategies, assets and resources, they risk exposing their sources of competitive advantage. This has led to organisations deliberately publishing generic reports that give little away – thereby providing minimal useful insight for investors.

Concerns about disclosing competitively sensitive information mean reports become too generic and high level.

However, the widespread availability of data today makes this concern less valid. In reality there are multiple sources of data available to glean insight into the performance of an organisation. It is, therefore, becoming increasingly important for organisations to build investor trust by communicating how managers are prioritising investments and managing trade-offs between them, including:

- trade-offs with immediate impacts: By investing in resource X, we can't invest in resource Y;
- trade-offs with adverse consequences: By investing in X, we reduce our capability in Y; and
- trade-offs with future impacts: By investing in X today, we will impact our future capability in Y.

Solution requirement 2: Communicate the value of strategic assets.

3. The failure of organisations to address growing environmental, social and governance (ESG) pressures adequately is diminishing trust in organisations.

Recent developments in accounting have not yet bridged the gap to show how organisations create value for all of their stakeholders today and in the longer term. It is important to recognise that value lies in the eye of the beholder and is inherently subjective. However, current accounting approaches do little to demonstrate how organisations deliver value to key stakeholders – a situation that can, in extreme cases, result in the organisation's licence to operate being revoked.

"We need a reporting framework for Boards to measure, manage and communicate the value they create consistently across stakeholder groups over the long term and relate this value to investors and other stakeholders in a compelling way."[39]

Today's perception of a 'profit at all costs' bias in businesses means that they are often seen to represent the interests of the few, rather than the many. This perception means that businesses are having to rethink how they engage with customers and broader society. They are being forced to ask what their role is, how they create value for the communities they operate in, and how they measure and report this value.

This re-evaluation of organisational value has significant implications for accounting and reporting. First, we need accounting and reporting systems that can explain more fully how organisations create value for different stakeholders. Second, we need systems that capitalise on new forms of data (both external and internal), to shine light on organisations' value-drivers and strategies for achieving competitive advantage.

Unless we address these issues, accounting and reporting systems will become increasingly irrelevant. They will fail to capture the true role and purpose of organisations. And they will fail to communicate how and for whom these organisations are creating value, leaving stakeholders and investors with insufficient decision-useful information.

[38] Barney, J. (1991) "Organisations Resources and Sustained Competitive Advantage", Journal of Management, 17, 1, pp. 99-120.
[39] Hywel Ball, Managing Partner, Assurance, EY.

We are currently going through the Fourth Industrial Revolution, which will be driven by data and the Internet of Things (IoT). Billions of devices are being equipped with sensors and connected to the internet. These devices are streaming data in real time that can be used both to monitor specific assets and optimise operational systems and processes. While it is true that data ubiquity has equipped stakeholders with the means to scrutinise business practices more quickly, it has also provided organisations with the opportunity to put evidence at the heart of their decision-making processes. Furthermore, by providing an audit trail for this process and a visible understanding of the trade-offs, data helps to improve stakeholder transparency and accountability in a way that has previously been impossible.

The opportunities to gain insight from data are endless. Traffic jams can be pinpointed on roads where people's mobile phones are either stationary or moving very slowly. Data streamed from buses and trams can be used to identify and fix faults and schedule maintenance. And transactional customer data can be used to create and deliver personalised offers in near real time.

The wealth of data available today creates some fascinating opportunities for accounting and reporting. No longer do we need to rely on data created within the organisation, but we can also use external sources of data to explore and confirm organisational performance and value.

Feeding into this is the ability to understand how stakeholders, customers and employees perceive organisations and the value they create. It is possible to gauge stakeholder sentiment based on what they say on Twitter and TripAdvisor. LinkedIn can tell you about the skills and capabilities of your staff, while Glassdoor can expose the real views of your employees.

In spite of these opportunities, existing accounting and reporting practices do little, if anything, to harness this data, representing a major missed opportunity to extend the definition of value, and to create more comprehensive, evidence-based reports. As investors begin to use big data techniques to inform their investment decisions, reports are at risk of becoming less relevant than ever.

Solution requirement 3: Provide multi-stakeholder reports that include a wider set of information relevant to stakeholders to rebuild trust.

4. Over-burdensome regulation and increased information demands result in reduced clarity.

As organisations are required to release ever more detailed information, their accounts and reports have become increasingly complex. This makes the reporting process more time consuming and burdensome, as well as making reports difficult for stakeholders to understand.

Reporting has become too burdensome as regulation has increased.

By focusing on the strategic assets required to deliver stakeholder outcomes reporting can be far simpler and easier for stakeholders to understand.

Solution requirement 4: Simplify reporting.

Addressing the challenges with a new approach for measuring and reporting long term value

In this section of the paper we will explain our proposed Long Term Value (LTV) model, which builds on strategic and integrated reporting to address the solution requirements.

What does our proposed LTV model look like?

To develop the proposed LTV model, we initially identified a list of challenges to current reporting. We mapped out the responses to these challenges and then reviewed the success of these approaches against the challenges to determine a rigorous set of solution requirements (see Table 1 for a summary of challenges identified and solution requirements proposed). While some of the proposed solutions we reviewed have resulted in incremental enhancements to reporting, and their importance in helping to address the challenges should not be downplayed, our initial observations suggested that there is still considerable room for improvement.

Challenges of reporting today
Challenge 1: The timelines associated with accounting profit and shareholder returns are disconnected.
Challenge 2: Too often we are measuring and reporting the wrong things.
Challenge 3: The failure of organisations to address growing environmental, social and governance (ESG) pressures adequately is diminishing trust in organisations.
Challenge 4: Over-burdensome regulation, increased information demands result in reduced clarity.

Solution requirements
Solution requirement 1: Develop reporting systems that provide insight into how organisations create value over the long term.
Solution requirement 2: Communicate the value of strategic assets.
Solution requirement 3: Provide multi-stakeholder reports that include a wider set of information relevant to stakeholders to rebuild trust.
Solution requirement 4: Simplify reporting.

Table 1: Challenges to reporting and solution requirements

To create stakeholder trust (solution requirement 3), we need a reporting model that provides insight, not hindsight (solution requirement 1). Providing insight means that investors need to understand easily how the organisation is creating value for all stakeholders through appropriate and managed investment in strategic assets (solution requirements 2 and 4). In today's connected world new sources of data create opportunities for new approaches to reporting (solution requirement 3). A new approach to reporting – the LTV model – has to integrate these various dimensions, taking account of an organisation's purpose, context and resource base. Figure 6, shows our LTV model, which has been developed and tested through multiple interactions with academics, investors and corporate leaders.

By applying the LTV Model, organisations can place long term value at the heart of their operations. This will not only align all stakeholders from across the organisation behind a clear purpose and strategy. It will also provide a platform for improved stakeholder relations that are based on a mutual understanding of the organisation's business model and the outcomes that it aims to deliver.

Defining the core principles that underpin our proposed LTV model

In the following sections, we explore two core principles that are central to understanding the creation of long term value and, therefore, our proposed LTV model. These are:

- **Purpose** – this is the organisation's aspirational 'reason for being', which is founded on how the organisation intends to contribute to the wellbeing of humanity, and which inspires a call to action; and
- **Stakeholder outcomes** – this refers to the fundamental performance indicators that matter most to different stakeholders. By delivering against these outcomes, the organisation is able to create value for stakeholders.

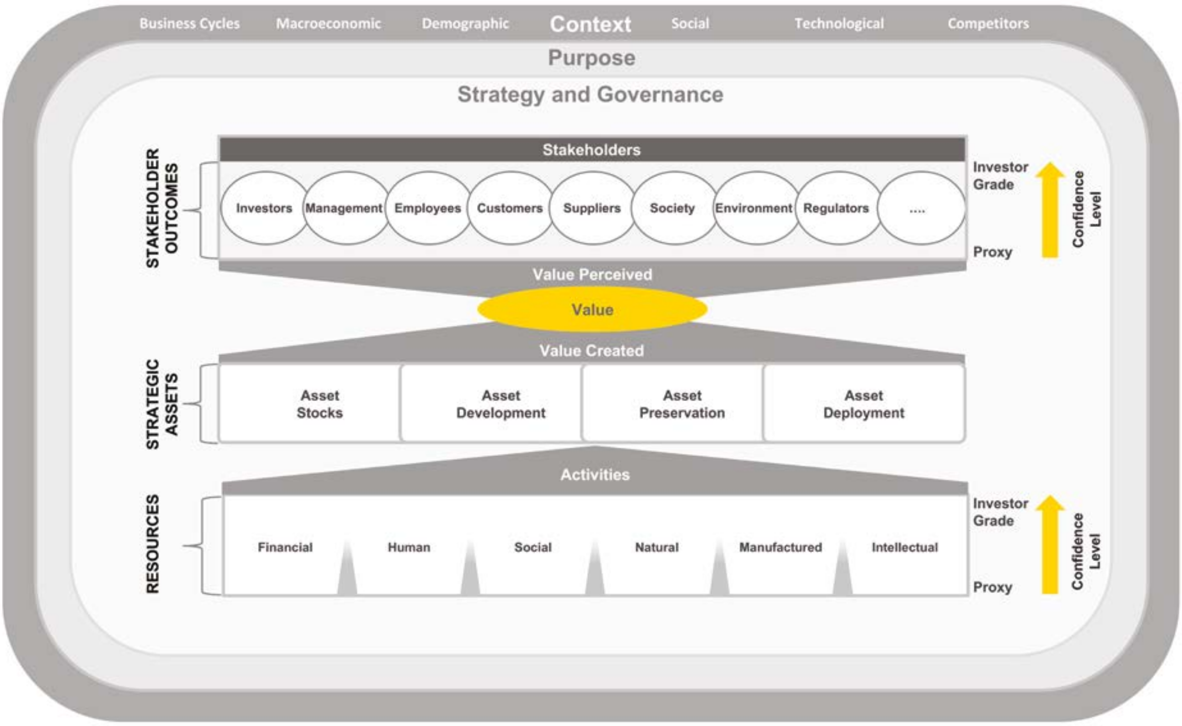


Figure 6: LTV model

1. The role of purpose in measuring and reporting LTV

At the core of our proposed LTV model is purpose: the sense of destiny that binds together all stakeholders within an organisation. A clearly defined organisational purpose allows the weighting of stakeholders by importance, thereby helping to confirm which stakeholders are more or less material to an organisation.

To illustrate the point, we can use the example of a pharmaceutical organisation (Pharma A). The theoretical company defines its purpose as: 'To be the market leading, science-led global healthcare company that improves the quality of human life by enabling people to do more, feel better and live longer'.

In essence, this statement explicitly states which stakeholders really matter to the organisation to fulfil its purpose, e.g. customers. However, there are a host of other material stakeholders, from regulators and investors, to suppliers, healthcare providers and research partners. The way Pharma A has chosen to define its purpose does not immediately explain how it is seeking to create value for these different stakeholders, and to retain their support and engagement.

Key stakeholders whose satisfaction significantly impacts the business include:

- staff, including research scientists, who need to feel valued and on the cutting edge of medical innovation;
- suppliers and partners, who need to feel that business relationships and supply chain processes are efficient and fair, and that products always meet expectations for quality and value; and
- investors, who need to understand business strategy and have visibility of the value being created both by existing resources and products, and by the organisation's product discovery and development pipeline.

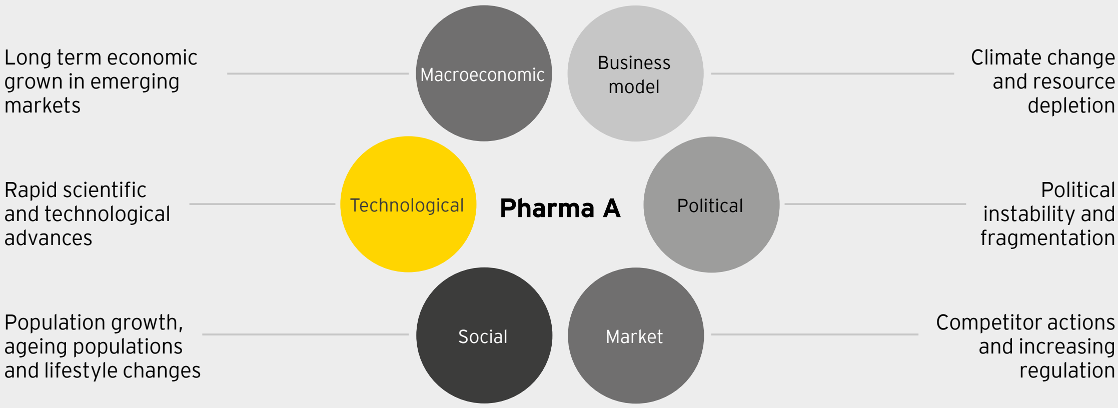
Another theoretical pharmaceutical company (Pharma B) defines its purpose as: 'To bring best-in-class drugs to market that advance the standard of care for people and greater efficacy'. Clearly there are parallels between this and Pharma A's purpose, but there are also notable differences.

Pharma B has decided to focus on 'best-in-class' treatments — in this case for HIV/AIDS, liver disease, haematology and oncology, cardiovascular, inflammatory and respiratory illnesses. This context shapes the way that Pharma B's defined purpose should be interpreted, within and between different categories of stakeholders to consider in the LTV model.

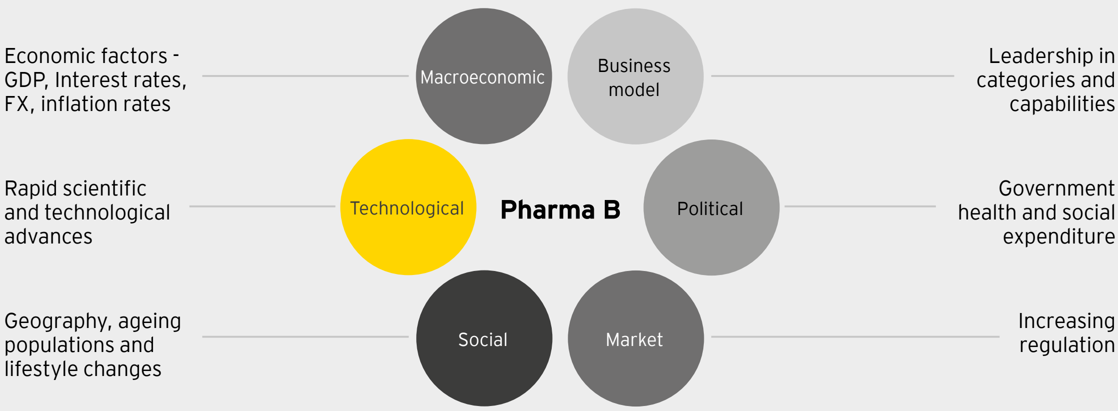
From theory to practice: purpose as a value indicator

Once we have a clear view of an organisation's purpose, it is possible to measure its progress in fulfilling it. Part of doing so requires us to measure perceived value across all material stakeholders, which is possible using big data techniques and technologies, as well as traditional information-gathering techniques.

This vital context for value (purpose plus perceived stakeholder value), helps us to understand exactly how an organisation is creating value and for whom. The starting point for this insight is purpose, as illustrated in Figure 7 on the following page.



- In emerging markets, long term economic growth, increasing expectations for healthcare provision, and changing diets and lifestyles are increasing demand for healthcare products. This demand is expected to grow significantly faster in these markets over the coming years than in more mature economies
- By 2030, the number of Americans above the age of 55 is expected to reach approximately 100 million, which is 31% of the total projected population. The biotechnology industry is expected to earn profits as it continues to innovate treatments for several rare and chronic conditions that afflict older people
- Changing societal attitudes are also shaping the healthcare environment. People are taking an increasingly active role in managing their own health which is creating more demand for healthcare products



- 12 blockbuster drugs worth $67bn in annual revenues lose their patents by 2020. This so-called patent cliff is when leading biotechnology companies face reduced sales when its established products lose patents and cheaper versions of the drug capture market share
- Lack of exercise, unbalanced diet, smoking and alcohol abuse contribute to unhealthy lifestyles and have been identified as major reasons leading to heart diseases, arthritis, and certain types of cancer such as lung and liver cancer. These factors have led to growth in the demand for biotechnology drugs, which is expected to translate into higher profits for biotechnology manufacturers
- Both the highly-charged public debate on drug pricing caps and the increased influence of value assessments are likely to continue which will create uncertainty for the industry

Figure 7: Contrasting contexts for Pharma A and Pharma B

2. Measuring value based on outcomes for different groups of stakeholders

Different stakeholders logically have different perceptions of value. As a result, creating long term value requires organisations to understand fully which outcomes are sought by their stakeholders.

The illustration below demonstrates how the two purpose statements result in different stakeholder weightings. Neither are right or wrong, however, it helps to clarify that not all stakeholders are weighted equally. Because Pharma A is very much focused on a broader social responsibility, it still creates value for investors and employees, but certainly in a different way than Pharma B does.

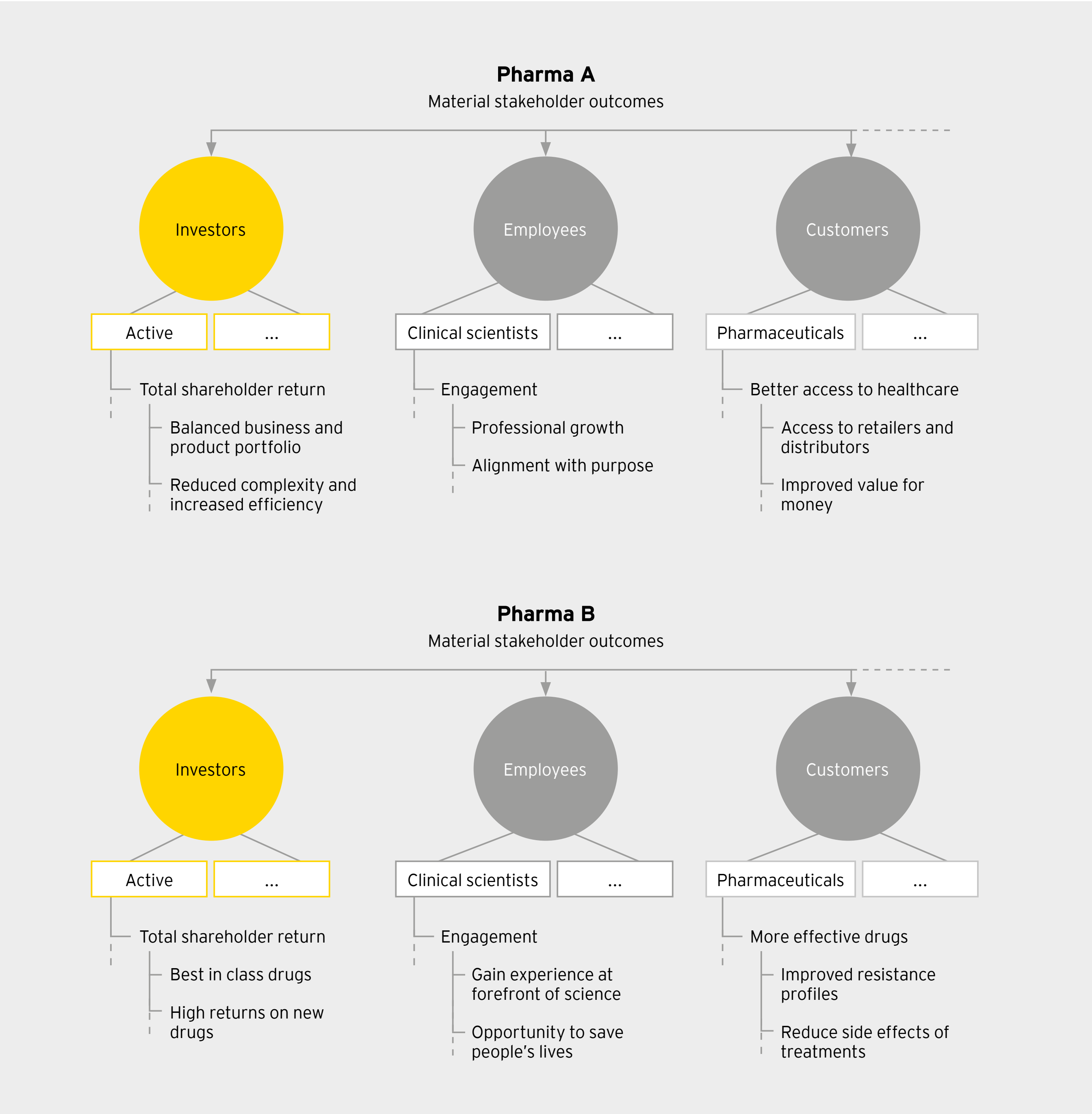


Figure 8: Contrasting desired stakeholder outcomes

How our proposed LTV model measures created value versus perceived value

The current method of measuring value is largely centred around inputs, these inputs were extended through the use of the six capitals.

The next evolution of measurement was to look at efficiency versus the inputs, for example, how many products are produced for a specific input. This operational focus is pervasive in management science. Other examples include customer churn versus investment in call handling. However, to truly measure effectiveness, the outcome from the perception of the stakeholder should be measured. For customers these would be a measure of how the customer feels, a good proxy for this is Net Promoter Score. To bring these concepts together, LTV aims to measure inputs, outputs from strategic assets and the outcomes that it creates for a stakeholder.

Organisations seek to create value though their strategic assets: bundles of resources and skills that organisations deploy to sustain their competitive advantage and, ultimately, create long term value for stakeholders. Economics literature frequently defines strategic assets that confer long term competitive advantage as VRIN. To exploit them successfully, organisations need to understand what stocks of strategic assets they have, what strategic assets they will need to create and how they should use them to drive:

1. strategic assets development – which requires judicious investment in resources to develop new VRIN strategic assets;
2. strategic assets preservation – which requires organisations to preserve their existing strategic assets and invest in them to ensure continued growth; and
3. strategic assets deployment – which requires organisations to deploy their strategic assets in ways that are consistent with the outcomes their material stakeholders are looking for, while ensuring that all activities contribute in a positive way to the organisation's purpose.

Bringing these themes together helps to close the gap between created and perceived stakeholder value, providing evidence of investment in long term value, and of measures to preserve existing strategic assets and to develop new ones. It also aligns the use of strategic assets to the organisation's stated purpose.

Returning to our previous example of the two pharmaceutical companies, Figure 9 contrasts the strategic assets required in each organisation to deliver specific desired stakeholder outcomes.

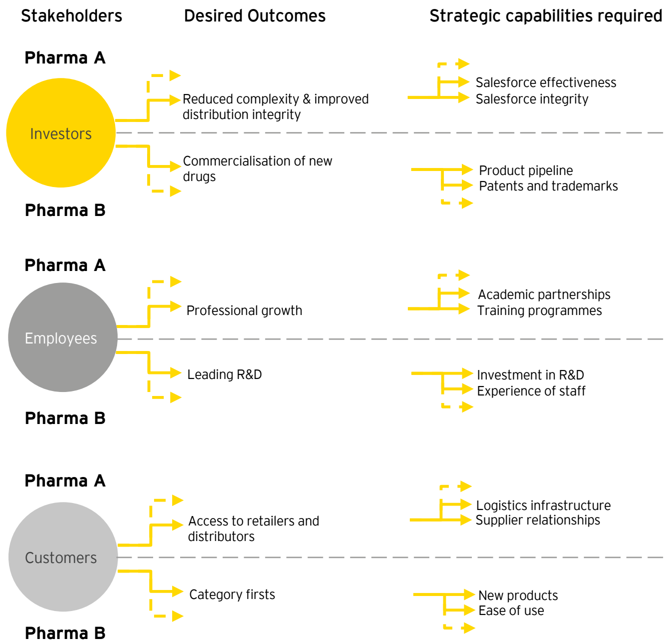


Figure 9: Aligning Strategic Assets with Stakeholder Outcomes

The six capitals as a foundation for inputs

Organisations can acquire the resources they need to develop strategic assets. This is where the six capitals identified in integrated reporting play an important role. As previously discussed, integrated reporting identifies six capitals that organisations can invest in:

1. financial capital
2. manufactured capital
3. intellectual capital
4. human capital
5. social and relationship capital, and
6. natural capital.

Appropriate investment in these six capitals allows organisations to develop, preserve and deploy strategic assets (assets that are VRIN – valuable, rare, inimitable and non-substitutable). Combined with a fuller understanding of stakeholder expectations and perceived value, these assets enable a 'stakeholder value settlement' that increases stakeholder support for strategic decisions. It also provides a better overall alignment between an organisation's purpose and the way it invests in resources to sustain competitive advantage and manage stakeholder trade-offs.

Bringing all of these dimensions together (see Table 2 on page 24 and Figure 9, above) is the foundation for our proposed LTV model.

Key Definitions in our proposed LTV model

Long term value – the value created for and perceived by stakeholders through the effective development, preservation and deployment of strategic capabilities in line with the organisation's stated purpose.

Context – the context within which the organisation operates, encompassing macroeconomic, societal, technological, political and market trends. This also includes the organisation's operating context, including the business models employed by the organisation and its competitors.

Purpose – an aspirational reason for being, grounded in humanity and inspiring a call to action.

Stakeholder outcomes – the fundamental dimensions of performance that matter to different stakeholders. By delivering against these outcomes the organisation is creating value for stakeholders.

Value perceived – the value that stakeholders perceive they are receiving.

Value created – the value the organisation is creating through appropriate use of its strategic capabilities.

Strategic assets – bundles of resources and skills that organisations can deploy to create long term value for all stakeholders. They are created through effective development, preservation and deployment of resources in line with the organisation's stated purpose.

Six capitals – the basic resource building blocks that organisations can invest in to develop strategic capabilities that are VRIN (valuable, rare, inimitable and non-substitutable).

Table 2: Key LTV Definitions

Key expected benefits of our proposed LTV model

By identifying and measuring intangible value across the organisation and mapping them to decision metrics, our proposed LTV model can help organisations to:

- make better business decisions by factoring LTV creation opportunities into capital allocation strategies;
- improve understanding of macroeconomic, technical, social and environmental trends to better inform investment decisions and to ensure that all decisions support the organisation's top-line context and purpose;
- account for the full range of intangible value drivers based on six key capital inputs (financial, human, social, natural, manufactured and intellectual);
- communicate to investors how and why corporate expenditures are made to develop strategic assets and the value created for different stakeholders based on the sentiments of different stakeholder groups; and
- increase stakeholder trust based on a broader range of information underpinning corporate reporting and decision-making.

"Too often, organisations today are short-termist in their thinking, focusing exclusively on how they capture value rather than how they create value for the long term."[40]

[40] Will Hutton, Principal, Hertford College, Oxford University.

Our proposed LTV reporting framework: structure and contents

Our proposed LTV framework is designed to provide a coherent, structured and concise stakeholder report based on all the value drivers discussed in this paper.

The report itself consists of three key sections.

Section 1: Context and long term industry trends

The first section is devoted to context, covering the business cycle and other long term trends. Clearly long term means different things to different organisations, especially those operating in different industry cycles. For aerospace, for example, product development strategies may span decades, whereas six months is a long term planning horizon for a startup. This must be taken into consideration in this first section of the report.

The second set of contextual factors are those trends that will impact the industry, these could include any of the following and many more:

- macroeconomic
- social
- technological
- environmental
- political, and
- market.

Figure 10 shows what this context setting section of the report might look for a pharmaceutical company.

Section 2: Purpose and strategic goals for creating stakeholder value

The second section of the report is dedicated to the organisation's purpose. As well as communicating the organisation's reason for being, this section of the report prioritises which stakeholder groups are critical to the fulfilment of the organisation's purpose, and the organisation will create value for them.

We have already seen how Pharma A defines its purpose: 'To be the market leading, science-led global healthcare company that improves the quality of human life by enabling people to do more, feel better, live longer.' Based on this, investors may ask a series of penetrating questions: What are the strategic assets that support this purpose? How does the company ensure that drugs get in the hands of those who need them? How does it develop and sustain the capacity to be science-led? How does it collaborate with other organisations? And how does employee churn among key scientists impact performance?

Section 3: Stakeholder value analysis

The third section — which constitutes the main body of the LTV report — consists of a series of one-page reports for individual stakeholders (the material stakeholders derived from the organisation's purpose). Although the reports themselves need to be simple and easy for stakeholders to understand, the data and analytics behind the reports is complex. Data and analytics now allows for the effective measurement of most stakeholder perceptions, for example, EY has developed a way to track how investors react to key market events. There are also many sophisticated ways to track customer value and employee engagement. These techniques can be re-purposed to allow for useful stakeholder information. Ultimately, what this allows for us is for organisations to play back to the stakeholders how they are allocating investment based on stakeholder value.

These one-page reports are based on the 'Strategic Resources & Consequences Report', created by Lev and Gu[41], and provide:

- an understanding of what strategic assets the organisation has, what new strategic assets are they investing in, how they are preserving their strategic assets, how are they deploying them and what value is being created as a result. Put simply, this section of the report outlines what the organisation is doing to create value for the primary stakeholder being considered; and
- evidence that the stakeholder concerned receives value from the organisation. Value is perceived, and this approach demonstrates evidence of the stakeholder's perception of value in terms of whether or not the organisation is delivering what they expect, want and need.

Although these reports are provided for each stakeholder type, there are clear links and interdependencies between them. This means that they should be viewed as an integrated set of reports. A sample of these one-page reports is shown below for the investor and employee stakeholder groups. Each report contains a mix of qualitative and quantitative measures. The qualitative measures are represented by oval shapes, while the quantitative measures are represented by rectangles.

[41] Baruch Lev and Feng Gu (2016) "The End of Accounting and the Path Forward for Investors and Managers", Wiley, New York.

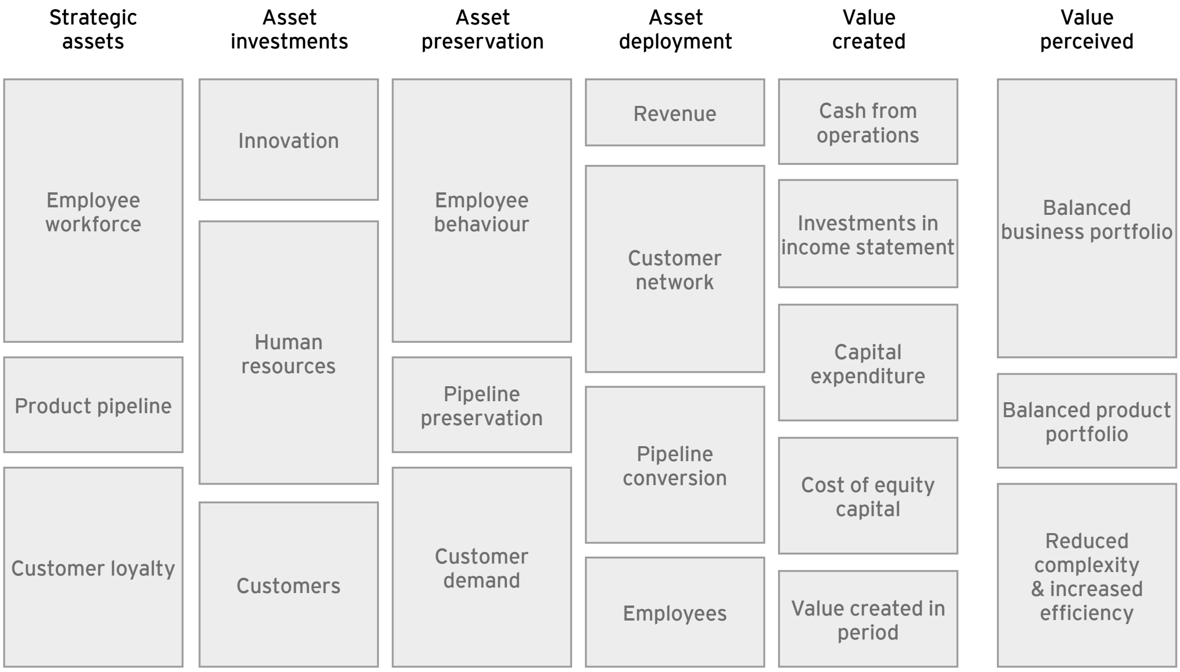


Figure 10: Sample investor value report

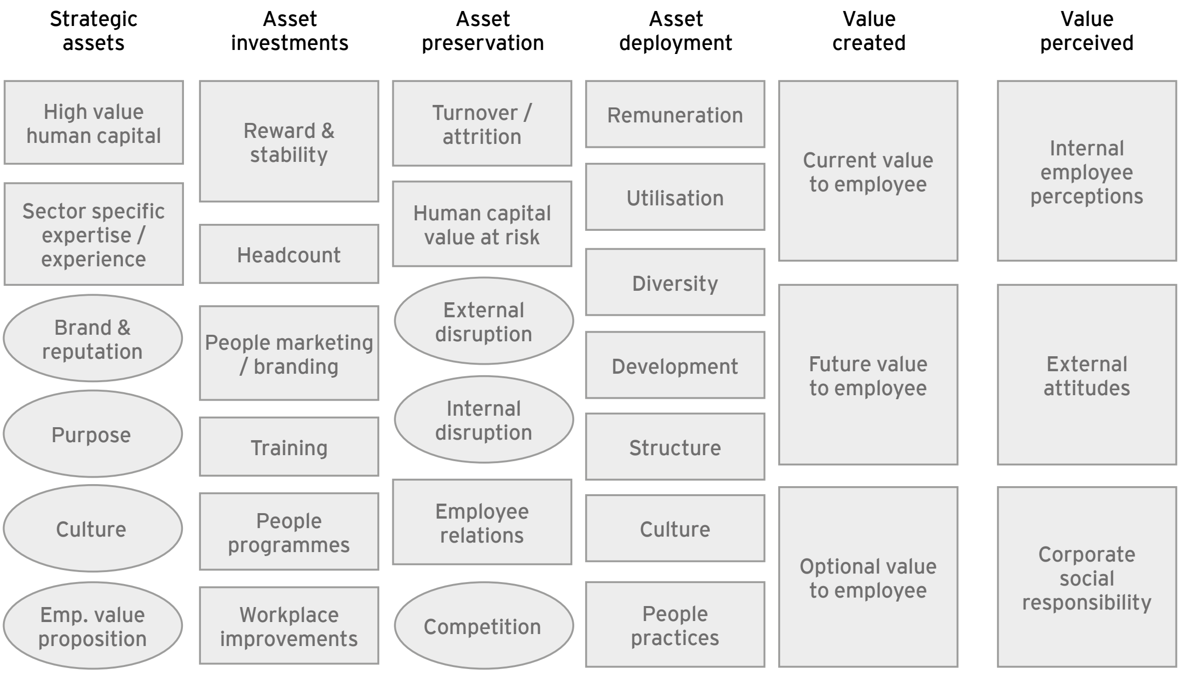


Figure 11: Sample employee value report

Conclusion

In this paper, we have taken a historical journey through the evolution of accounting and reporting, and contrasted that journey with the much faster progress of social, environmental and business-model change. The fact that accounting and reporting has failed to keep pace with business change — particularly in the late 20th and early 21st century — means that accounting and reporting practices must now be re-evaluated and transformed to meet the needs of today's organisations and their ever-expanding stakeholder communities.

To meet this challenge, we propose a new approach to LTV measurement and reporting based on four key solution requirements. The new model furthers the progress that has already been made with strategic and integrated reporting, applying investor-grade metrics to perceived stakeholder value and a range of other value drivers to narrow the gap between reported value and book value.

Critically, the proposed LTV model measures value according to the purpose of the organisation, which states its goals in terms of how value will be perceived and created for stakeholders. The context of the organisation is considered — including both macros and micro-trends that impact performance. Data is captured from all stakeholder groups to understand their perceptions of the value delivered to them and the strategic assets needed to do so. Finally, the LTV model provides a simple, repeatable structure for building and publishing stakeholder value reports that reduces workloads, while also simplifying reports for stakeholders. In this way, it helps to rebuild trust between stakeholders and organisations, helping to ensure continuing support for the organisation's purpose.

This paper aims to be a catalyst for a better discussion and implementation of reporting. The profession has a rich heritage and an exciting future if it embraces the change.

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