

Methods of literature review and sources

Supporting document to Background Paper "The Capitals" www.theiirc.org/resources-2/framework-development/background-papers

CONTENTS:

- **The capitals and their usage in the literature**
- **Natural Capital**
- **Social and Human Capitals**
- **Intellectual, Financial and Manufactured Capitals**

The capitals and their usage in the literature

Initially broad Google Scholar Searches¹ were conducted on each of the six IIRC capitals in order to identify the extent of citation and inferred acceptance of the terms. The results are detailed in the table below along with details of the most cited sources for each term. The results show that 'Human capital' and 'Social capital' are used widely. 'Intellectual capital', 'Financial capital' and 'Natural capital' are less common, but nonetheless have some prominence whilst 'Manufactured Capital' remains a relatively less common term in the literature reviewed. As a result the search was extended for the term 'manufacturing capital' which was found to be a slightly more frequently used term.

In part, the relatively limited reference to financial capital and manufactured capital² may be because they are well understood, taken for granted terms and therefore not subject to the same degree of debate. Alternatively other phrases are used to describe financial capital, including wealth, money, etc. In this respect, the search results are a reflection of the level of debate of each term rather than a fair reflection of their usage in practice.

Table 1 Google Scholar Searches (September 2012)

Term (IIRC capitals)	Results	Most Citations noted
Human Capital	943,000	19,838: Becker & Tomes 1994
Social Capital	543,000	8,720 : Putnam 1995 (then Nahapiet & Ghoshal, 7,109 above)
Intellectual Capital	36,300	7,109 : Nahapiet & Ghoshal 1998
Financial Capital	35,000	1,169: Cooper, Gimeno-Gascon & Woo 1994
Natural Capital	22,300	7,606: Costanza et al 1997
Manufactured Capital	1,810	374: Arrow et al 2004
<i>Manufacturing Capital</i>	<i>2,600</i>	<i>2,046: Berman, Bound & Griliches 1994</i>

¹ Conditions for the searches made included using: 'Advanced Search', 'Articles excluding Patents', 'At least Summaries', 'Since 1990'. "Quote Marks" were used for search terms.

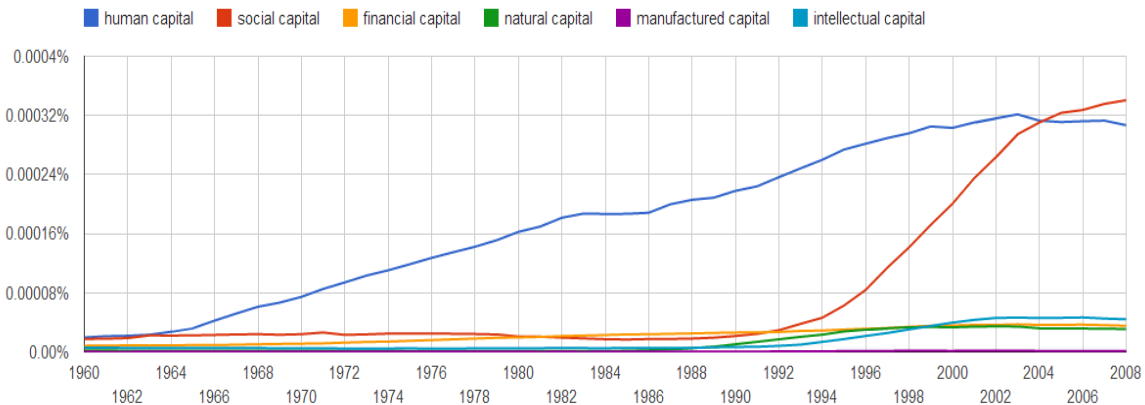
² In terms of manufactured capital, the exception maybe debate on manufactured capital that doesn't belong to you.

Methods of literature review and sources

Supporting document to Background Paper "The Capitals" www.theiirc.org/resources-2/framework-development/background-papers

A search was also conducted using the Google Corpus website/tool, which consists of all books in English, scanned as a part of the Google digitisation project, for the occurrence of the terms in literature over time³.

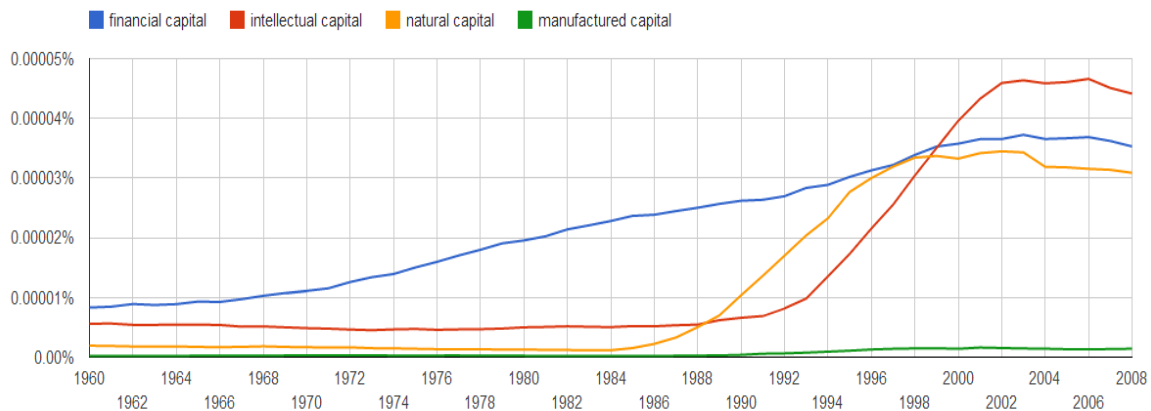
Figure 1: Reference to the capitals in Google Corpus 1960-2008 using NGram viewer



The results are displayed in Figure 1 and again indicate that the terms 'social capital' and 'human capital' have appeared significantly more often in the literature than the other capitals. 'Human capital' has steadily risen in usage since around the 1960s, leveling off in the late 1990s. Use of the term 'social capital' quickly increased in the 1990s to match similar usage levels as 'human capital' by the early 2000s.

Figure 2 depicts the other four capitals alone so their relationship can be seen more clearly.

Figure 2: Reference to financial, intellectual, natural and manufactured capital in Google Corpus 1960-2008 using NGram viewer



³ While the Google project only runs until 2008, and therefore does not include literature published in the years since then, it does serve to highlight the foundation of the various capitals in literature over time.

Methods of literature review and sources

Supporting document to Background Paper "The Capitals" www.theiirc.org/resources-2/framework-development/background-papers

As can be seen, the term 'financial capital' has gradually risen in use since the 1960s, while 'Intellectual capital' has grown in use much more recently. 'Natural capital' started to appear in literature from the late 1980s, growing in use until the late 1990s, and then tailing off up until the 2008 cut off. 'Manufactured capital' has consistently remained as a much less common term than the other capitals.

Natural Capital

Method of literature review

To get a general overview of literature used a general search engine (Google) to initially search on term "natural capital" (using quotation marks to ensure an exact search on term), and then furthermore on search string 'natural capital definition'.

Results which included natural capital term as part of a specific group/entity were ignored (although this is not always clear-cut, with a number of groups both using the term as part of their title, and providing perspectives on a definition), as well as general references in press articles. Furthermore references from online general reference sources were not considered (e.g. Wikipedia, dictionaries, business directories- although a number of these did offer useful definitions). For both search strings, the first 10 pages (100 results) of relevant unique results were considered. (Incidentally, the second search string (natural capital definition) yielded some preferable results to direct at specific definitions of the term- filtering out company names/ general mentions in press articles.)

To supplement the review carried out on Google- an additional search which targeted academic literature was carried out to identify definitions of the term natural capital. Utilising the University of Strathclyde's 'SUPrimo' search engine- which considers a wide range of academic journals, books, electronic sources etc- the term "natural capital" was searched. Sources were selected from the search which focused on the general themes of natural capital. From this search, 10 academic resources were looked at specifically.

Sources

- Houses of Parliament, (2011), *Natural Capital Accounting*, [www.lwec.org.uk/sites/default/files/postpn_376-natural-capital-accounting\[2\].pdf](http://www.lwec.org.uk/sites/default/files/postpn_376-natural-capital-accounting[2].pdf)
- Scottish National Heritage, (2012), *Scotland's Natural Capital Asset (NCA) Index*, www.snh.gov.uk/docs/B814140.pdf
- GLOBE International Commission, (2010), *Natural capital: The new political imperative*, <http://static.zsl.org/files/natural-capital-the-new-political-imperative-final-report-1243.pdf>
- Centre for Ecology and Hydrology, (accessed 31/10/12), *The Natural Capital Initiative*, www.ceh.ac.uk/sci_programmes/natural-capital-initiative.html
- Forum for the Future, (2009), *The Five Capitals Model- a framework for Sustainability*, www.forumforthefuture.org/project/five-capitals/overview
- SRDTOOLS, (accessed 31/10/12), *Four Capitals model*, www.srdtools.info/glossary.htm#natural
- Khan, J. (Office for National Statistics), (2011), *Towards a sustainable environment: UK natural capital and ecosystem economic accounting*, www.ons.gov.uk/ons/rel/environmental/uk-environmental-accounts/2011---blue-book-update/artnaturalcapital.html

Methods of literature review and sources

Supporting document to Background Paper "The Capitals" www.theiirc.org/resources-2/framework-development/background-papers

- James Hutton Institute, (accessed 31/10/12), *Safeguarding Natural Capital*, www.hutton.ac.uk/research/themes/safeguarding-natural-capital
- University of Cambridge Programme for Sustainability Leadership, (accessed 31/10/12), *Natural Capital Leaders Platform*, www.cpsl.cam.ac.uk/Business-Platforms/Natural-Capital-Leaders-Platform.aspx
- Society of Biology, Centre for Ecology and Hydrology and the British Ecological Society, (accessed 31/10/12), *Natural Capital Initiative*, www.naturalcapitalinitiative.org.uk/glossary
- Bank of Natural Capital, TEEB (The Economics of Ecosystems and Biodiversity), (accessed 31/10/12), <http://bankofnaturalcapital.com/category/natural-capital>
- OECD, (accessed 31/10/12), *Natural Capital (glossary of terms)*, <http://stats.oecd.org/glossary/detail.asp?ID=1730>
- Voora, V.A., & Venema, H.D. (IISD), (2008), *The Natural Capital Approach: A Concept Paper*, www.iisd.org/pdf/2008/natural_capital_approach.pdf
- Global Footprint Network, (accessed 31/10/12), *Natural Capital (glossary)*, www.footprintnetwork.org/pt/index.php/GFN/page/glossary
- Global Development Research Centre, (accessed 31/10/12), *Natural Capital*, <http://www.gdrc.org/sustdev/concepts/26-nat-capital.html>
- Brand, F. (2009) *Critical natural capital revisited: Ecological resilience and sustainable development*, *Ecological Economics*, Volume 68, Issue 3, Pages 605-612
- De Groot et al. (2003) *Importance and threat as determining factors for criticality of natural capital*, *Ecological Economics*, Volume 44, Issues 2-3, Pages 187-204
- Ehrlich P.R. et al. (2012) *Securing natural capital and expanding equity to rescale civilization*, *Nature* 486, 68-73
- Ekins et al. (2003) *A framework for the practical application of the concepts of critical natural capital and strong sustainability*, *Ecological Economics*, Volume 44, Issues 2-3, Pages 165-185
- Goodwin, N. R. (2003). *Five Kinds of Capital: Useful Concepts for Sustainable Development*, Global Development and Environment Institute Working Paper No.03-07, http://www.ase.tufts.edu/gdae/publications/working_papers/03-07sustainabledevelopment.PDF
- Holland, A. (1994). *Natural Capital*. Royal Institute of Philosophy Supplement, 36, 169-182
- Petrosillo, I. et al. (2010). *Detecting the 'conservation effect' on the maintenance of natural capital flow in different natural parks*, *Ecological Economics*, Volume 69, Issue 5, Pages 1115-1123
- Rodrigues, J. (2005) *Constraints on dematerialisation and allocation of natural capital along a sustainable growth path*, *Ecological Economics*, Volume 54, Issue 4, Pages 382-396
- Roseta-Palma, C. et al. (2010) *Externalities in an endogenous growth model with social and natural capital*, *Ecological Economics*, Volume 69, Issue 3, 15, Pages 603-612
- Ruggeri, J. (2009) *Government investment in natural capital*, *Ecological Economics*, Volume 68, Issue 6, Pages 1723-1739

Methods of literature review and sources

Supporting document to Background Paper "The Capitals" www.theiirc.org/resources-2/framework-development/background-papers

- Ulgiati S. et al. (2011) *Shared wealth or nobody's land? The worth of natural capital and ecosystem services*, Ecological Economics, Volume 70, Issue 4, Pages 778-787

Social and Human Capitals

Method of literature review

Method	What has been looked at and why
Subject specific dictionaries & online encyclopedias	Supplied by La Trobe University librarian
Google and Google Scholar general search engine search, Wikipedia	Scope spread of literature available and breadth of debate
Reports into Human capital & Social capital by government taskforces	Provides diverse views on H.C and S.C value, practice and emerging issues
Sources considered in human capital & social capital academic literature reviews (Google scholar searches into 'Human capital literature review' and 'social capital literature review')	Identification of seminal publications and established areas of debate
<i>IIRC Discussion Paper</i> sources	Source of IIRC capital definitions
Subject specific dictionaries & online encyclopedias	Supplied by La Trobe University librarian

Sources

- *Accounting for People (2003). Report of the Task Force on Human Capital Management.* Presented to the Secretary of State for Trade and Industry <http://www.bis.gov.uk/files/file38839.pdf>
- *The Five Capitals Model – a framework for sustainability*, Forum for the Future, 2009 <http://www.forumforthefuture.org/project/five-capitals/overview>
- "The Five Capitals of Integrated Reporting – Toward a Holistic Architecture for Corporate Disclosure" White, A.L in *The Landscape of Integrated Reporting: Reflections and Next Steps*, 2010 http://hbswk.hbs.edu/pdf/The_Landscape_of_Integrated_Reporting.pdf
- Baker, W. (2000). *Achieving success through social capital: Tapping hidden resources in your personal and business networks.* Ann Arbor: University of Michigan Press.
- Barney, J. (1991). *Firm resources and sustained competitive advantage.* Journal of Management, 17, 99-120.
- Becker, G. S. (1964). *Human capital.* New York: Columbia University Press.
- Bourdieu, P., *Distinction: a Social Critique of the Judgment of Taste* (Routledge, 1979)
- Bourdieu, P., "The Forms of Capital," in J.G. Richardson, ed., *Handbook of Theory and Research for the Sociology of Education* (Greenwood Press, 1986)
- Cappelli, P. (1999). *The new deal at work.* Boston: Harvard Business School Press.

Methods of literature review and sources

Supporting document to Background Paper "The Capitals" www.theiirc.org/resources-2/framework-development/background-papers

- Cohen, D., & Prusak, L. (2001). *In good company: How social capital makes organizations work*. Boston: Harvard Business School Press.
- Coff, R. W. (2002). *Human capital, shared expertise, and the likelihood of impasse in corporate acquisitions*. *Journal of Management*, 28, 107-128.
- Coleman, J. S (1998) "*Social Capital in the Creation of Human Capital*", *The American Journal of Sociology*, Vol. 94, Supplement: Organizations and Institutions: Sociological and Economic Approaches to the Analysis of Social Structure. (1988), pp. S95-S120.
- Dess, G.D. & Picken, J.C. (1999). *Beyond productivity: How leading companies achieve superior performance by leveraging their human capital*. New York: American Management Association.
- Fraumeni, B.M. (2008). *Human Capital: From Indicators and Indexes to Accounts*, paper commissioned by OECD and presented at Fondazione Giovanni Agnelli, Turin 3-4 November 2008
- Fukuyama, F. (1995). *Trust: The social virtues and the creation of prosperity*. New York: Free Press.
- Gnyawali, D. R., & Stewart, A. C. (2003). *A contingency perspective on organizational learning: Integrating environmental context, organizational learning processes, and types of learning*. *Management Learning*, 34, 63-89.
- Gratton, L. & Ghoshal, S. (2003) "*Managing personal human capital: New ethos for the 'volunteer' employee*". *European Management Journal*, 21:1-10.
- Harris, D., & Helfat, C. (1997). *Specificity of CEO human capital and compensation*. *Strategic Management Journal*, 18, 895-920.
- Kaplan, R.S & Norton, D.P "*Measuring the Strategic Readiness of Intangible Assets*", *Harvard Business Review On Point Collection*, February 2004. www.paca-online.org/cop/docs/Kaplan+Norton_Balanced_Scorecard_-_3_articles.pdf
- Keeley B. (2008), *Human Capital How what you know shapes your life*, OECD, Paris. <http://images2.ehaus2.co.uk/oecd/pdfs/free/0107101e.pdf>
- Kogut, B., & Zander, U. (1992). *Knowledge of the firm and the evolutionary theory of the multinational corporation*. *Organization Science*, 3, 383-397.
- Kulvisaechana, S. & Stiles, P. (2003). *Human Capital and Performance: A Literature Review*. Task Force on Human Capital Management Reporting, Department of Trade and Industry, UK
- Lepak, D. P., & Snell, S. A. (1999). *The human resource architecture: Toward a theory of human capital allocation and development*. *Academy of Management Review*, 24, 31-48.
- Lepak, D. P., & Snell, S. A. (2002). *Examining the human resource architecture: The relationships among human capital, employment, and human resource configurations*. *Journal of Management*, 28, 517-543.
- Nahapiet & Ghoshal (1998). *Social Capital, Intellectual Capital, and the Organizational Advantage*. *Academy of Management Review*, Volume 23, pages 242-266
- OECD, 2001 *The Well-being of nations: The Role of Human and Social Capital*, The Centre for Educational Research and Innovation
- Offstein, E. H., Gnyawali, D. R., & Cobb, A. T. (2005). *A strategic human resource perspective of firm competitive behavior*. *Human Resource Management Review*, 15, 305-318.
- Putnam, R.D (1995) "*Bowling Alone: America's Declining Social Capital*", *Journal of Democracy* 6(1):65-78
- "*Bowling Together: Interview with Robert Putnam*", *OECD Observer*, No. 242, March 2004
www.oecdobserver.org/news/archivestory.php/aid/1215/Bowling_together.html
- Putnam, R. D. (2000). *Bowling alone: The collapse of American community*. New York: Simon & Schuster.

Methods of literature review and sources

Supporting document to Background Paper "The Capitals" www.theiirc.org/resources-2/framework-development/background-papers

- Putman, R.D. *Bowling Alone: The Collapse and Revival of American Community* (Simon and Schuster, 2000).
- Putnam, R. D. & Feldstein, L. M. (2003). *Better together: Restoring the American community*. New York: Simon & Schuster.
- Smith, Adam (1776) *An Inquiry into the Nature And Causes of the Wealth of Nations Book 2 - Of the Nature, Accumulation, and Employment of Stock*
- Stiglitz, J.E., Sen, A. Fitoussi, J., (2011) *Report by the Commission on the Measurement of Economic Performance and Social Progress* www.stiglitz-sen-fitoussi.fr
- Yli-Renko, H., Autio, E., & Sapienza, H. J. (2001). *Social capital, knowledge acquisition, and knowledge exploitation in young technology-based firms*. *Strategic Management Journal*, 22, 587-613.
- Wheeler D and Sillanpää M (1997). *The Stakeholder Corporation. A blueprint for maximising stakeholder value*. Pitman, London. (GS 136+204) (UK+US)
- Allen L. White, (2010) "The Five Capitals of Integrated Reporting: Toward a Holistic Architecture for Corporate Disclosure" Chapter in Eccles, R.G, Cheng, B and Saltzman D. (Eds) *The Landscape of Integrated Reporting Reflections and Next Steps*, Part 2, p.29
http://hbswk.hbs.edu/pdf/The_Landscape_of_Integrated_Reporting.pdf

Intellectual, Financial and Manufactured Capitals

Method of literature review

The first 50 search results were saved and examined for each Search term.

Google Scholar does not seem to rank the papers listed by Citations exactly, although the most highly cited papers tend to turn up on the first page or two of results.

Financial Capital

- The literature referring to "Financial capital" is a wide ranging and diverse one. There were at least 30 Journals referred to in the first 50 articles on Google Scholar Search. There were 9 references to the *Journal of Business Venturing* and 7 Books referred to. Only a small number of Journals were cited twice. There were no particularly prominent Authors although a small number were featured in both the Intellectual Capital and Financial Capital lists.
- The most prominent disciplines in the Google Search results were associated with the broad topics of Small Business, Entrepreneurship and Urban Planning & Demography.
- There was only one citation to a prominent Accounting Journal and that was to AO&S where the cited article was looking at issues of power and control in financing health care through a lens sourced from Bourdieu. This is perhaps not so directly relevant to the Capitals Project.
- At a very Macro historical level the book *Technological revolutions and financial capital* by Carlotta Perez looks at the linkages between developments in these two fields.
- At a more Micro level much of the literature on "Financial Capital" derives from fields and Journals which focus on issues surrounding business start-up, business funding and entrepreneurship. In this context much of the discussion would be around the raising of capital and the internal management of capital to fund firm growth.

Methods of literature review and sources

Supporting document to Background Paper "The Capitals" www.theiirc.org/resources-2/framework-development/background-papers

- The Journal of Business Venturing is the major journal in the field of Entrepreneurship. An examination of articles published in this Journal in 2012 suggests no obvious starting point for an analysis relevant to the Capitals project.
- However two articles which may offer some comparative international insights into the nature of Entrepreneurship research are: International entrepreneurship research in emerging economies: A critical review and research agenda, Journal of Business Venturing, Volume 27, Issue 2, March 2012, Pages 266-290, Andreea N. Kiss, Wade M. Danis, S. Tamer Cavusgil, Formal institutions, culture, and venture capital activity: A cross-country analysis, Journal of Business Venturing, Volume 27, Issue 1, January 2012, Pages 95-111, Yong Li, Shaker A. Zahra
- The more relevant search terms for an accounting perspective on this topic are "Financial Reporting" which on Google Books generates more than 1,540,000 results, and "Financial Accounting" which generates 1,950,000 search results.
- An academic search in a library database generates a results list of over 18,000 peer reviewed Journal articles for "Financial Reporting" and over 14,000 peer reviewed Journal articles for "Financial Accounting".
- A search on a library database for "Financial Accounting" and "Literature Review" Peer Reviewed Articles, Post 2008 derived 387 results.

Sources

- *Formal institutions, culture, and venture capital activity: A cross-country analysis, Journal of Business Venturing, Volume 27, Issue 1, January 2012, Pages 95-111, Yong Li, Shaker A. Zahra*
- *Carbon accounting: a systematic literature review, Stechemesser, Kristin ; Guenther, Edeltraud, Journal of Cleaner Production, 2012, Vol.36, pp.17-38 [*
- *A Review of Financial Accounting Fraud Detection based on Data Mining Techniques, Anuj Sharma ; Prabin Kumar Panigrahi, International Journal of Computer Applications, 2012, Vol.39(1), p.37*
- *Accounting research and trust: a literature review, Gudrun Baldvinsdottir ; Andreas Hagberg ; Inga-Lill Johansson ; Kristina Jonäll ; Jan Marton; Qualitative Research in Accounting & Management, 2011, Vol.8(4), p.382-424*
- *Statistical approach of the literature review on quantitative and qualitative factors of materiality. Span, Georgeta Ancuta ; Garcia, Francisco Javier Martinez ; Del Corte, Javier Montoya ; Popa, Irimie Emil; Journal of Academy of Business and Economics, Jan, 2011, Vol.11(1), p.105(10)*
- *The institutionalisation of unaccountability: Loading the dice of Corporate Social Responsibility discourse, Archel, Pablo ; Husillos, Javier ; Spence, Crawford; Accounting, Organizations and Society, 2011, Vol.36(6), pp.327-343*
- *The search was revised by substituting meta-analysis for "Literature Review"*
- *Corporate social responsibility, firm value and financial performance in Brazil, Vicente Lima Crisóstomo ; Fátima de Souza Freire ; Felipe Cortes de Vasconcellos; Social Responsibility Journal, 2011, Vol.7(2), p.295-309*
- *Towards reformulation of the Capital Asset Pricing Model (CAPM) focusing on idiosyncratic risk and roll's meta-analysis: methodological approach.(Report) Lusk, Edward J. ; Halperin, Michael ; Bern, Manuel; Journal of Financial Management & Analysis, Jan-June, 2008, Vol.21(1), p.1(23)*

Revised Search on "Financial Reporting" and meta-analysis

- *Meta-analytic review of disclosure level and cost of equity capital, Mohsen Souissi ; Hichem Khlif; International Journal of Accounting and Information Management, 2012, Vol.20(1), p.49-62*

Revised Search on "Financial Reporting" and "Literature Review"

Methods of literature review and sources

Supporting document to Background Paper "The Capitals" www.theiirc.org/resources-2/framework-development/background-papers

- *An historical review of quality in financial reporting in Australia*, Esther Cheung ; Elaine Evans ; Sue Wright; Pacific Accounting Review, 2010, Vol.22(2), p.147-169
- *Integrated financial reporting: from international experiences to perspectives at national level*. (Report) Mustata, Razvan V. ; Matis, Dumitru ; Bonaci, Carmen Giorgiana
- *Review of Business Research*, March, 2012, Vol.12(2), p.145(6)
- *The development and state of research on social and environmental reporting in global comparison*, Fifka, Matthias; Journal für Betriebswirtschaft, 2012, Vol.62(1), pp.45-84

Manufactured Capital

- Manufactured Capital appears to be a fairly discipline specific term with Ecological Economics accounting for at least 15 of the first 50 Search results. There were no other specific Journals with more than a couple of results. Many of the Journals included words such as Ecology, Environment or Sustainability in their title. Additionally there was a smaller subset of Economics related Journal articles listed.
- There appear to be no Accounting Journals in the first 50 results for Manufactured Capital. By way of contrast Manufacturing Capital is an Economics discipline specific term with no Journal having more than 4 articles. That Journal was the American Economic Review, arguably the premier Journal in the broad field of Economics. In all there were more than 30 Journals cited in the first 50 results. Almost none of these Journals strayed far from the discipline of Economics, broadly defined. There appear to be no Accounting Journals in the first 50 results for Manufacturing Capital.
- Manufactured capital refers to material goods and infrastructure owned, leased or controlled by an organisation that contribute to production or service provision, but do not become embodied in its output. Examples include: tools, technology, machines, buildings and all forms of infrastructure. Why it is important to organisations?:
Manufactured capital is important for the sustainable development of an organisation in two ways. Firstly, the efficient use of manufactured capital enables an organisation to be flexible, responsive to market or societal needs, innovative and faster in getting its products and services to market. Secondly, manufactured capital and technology can reduce resource use and focus more on human creativity, thus enhancing both efficiency and sustainable development. (Project Sigma)

Sources

- *Indicators of sustainable development: some lessons from capital theory*, Peter A. Victor Ecological Economics, 1991, vol. 4, issue 3, pages 191-213
- *Terms and concepts in ecological economics*, Gowdy, JM, Wildlife Society Bulletin [Wildl. Soc. Bull.]. Vol. 28, no. 1, pp. 26-33. 2000
- Arrow, K. et al. 2004. *Are we consuming too much?* Journal of Economic Perspectives 18(3):147-172.
- (And a lay discussion of issues surrounding the paper 'Are We Consuming Too Much?' at www.conservationmagazine.org/2008/07/are-we-consuming-too-much)

Intellectual Capital

Methods of literature review and sources

Supporting document to Background Paper "The Capitals" www.theiirc.org/resources-2/framework-development/background-papers

- The key Journal revealed by this search was the *Journal of Intellectual Capital*, which contributed 18 of the 50 results. An additional 7 results were for books. More of the cited articles in other Journals came from a range of Journals in the fields of Management and Strategic Planning. The two Accounting Journals cited were AAAJ and AOS.
- A cursory examination of Authors shows some of the key authors to be: N Bontis, J Guthrie, M Subramaniam, J Mouritsen, L Edvinsson

Sources

- *The Journal of Intellectual Capital* is the key discipline Journal. The Journal commenced publication in 2000. In Issue 2: Richard Petty, James Guthrie, (2000) "*Intellectual capital literature review: Measurement, reporting and management*", *Journal of Intellectual Capital*, Vol. 1 Iss: 2, pp.155 – 176 (This includes a brief timeline of Intellectual Capital research through the 1980's and 1990's as it developed out of earlier Accounting concepts of Goodwill and Intangibles. This article has been highly cited in the intervening years.)
- In 2012 the following article appeared to bookend the Intellectual Capital literature: James Guthrie, Federica Ricceri, John Dumay, *Reflections and projections: A decade of Intellectual Capital Accounting Research*, *The British Accounting Review*, Volume 44, Issue 2, June 2012, Pages 68–82 (This article surveys 423 articles from the 2 specialist Intellectual Capital Journals and from 8 generalist Accounting Journals.)
- The issue of intellectual capital was reviewed from the perspective of SMEs involved in R&D by the European Commission's High Level Expert Group on RICARDIS (Reporting Intellectual Capital to Augment Research, Development and Innovation in SMEs), 2006. (Ref. EUR 22095EN see http://ec.europa.eu/invest-in-research/pdf/download_en/2006-2977_web1.pdf)
- Another recent Literature review is: NE Tawy, T Tollington, 2012, *Intellectual Capital Literature Review*, *Journal of Learning and Intellectual Capital*, *International Journal of Learning and Intellectual Capital*, v 9 n3, p241-259 (Surveys all articles in the *Journal of Intellectual Capital* to 2006.)
- A more critical perspective on issues surrounding the definition and utility of the accounting conception of Intellectual Capital can be found in: Gowthorpe, Catherine, *Wider still and wider? A critical discussion of intellectual capital recognition, measurement and control in a boundary theoretical context*, *Critical Perspectives on Accounting*, 2009, Vol.20(7), pp.823-834
- The second key Intellectual Capital Journal identified by Guthrie, Ricceri and Dumay 2012 is the *Journal of Human Resource Costing and Accounting* (JHRCA).
- The issue of intellectual capital was reviewed from the perspective of SMEs involved in R&D by the European Commission's High Level Expert Group on RICARDIS (Reporting Intellectual Capital to Augment Research, Development and Innovation in SMEs), 2006. (Ref. EUR 22095EN see http://ec.europa.eu/invest-in-research/pdf/download_en/2006-2977_web1.pdf)
- See also Beeton, R.J.S. (2006), "Society's forms of capital: a framework for renewing our thinking" paper prepared for the 2006 Australian State of the Environment Committee, Department of the Environment and Heritage, Canberra. Beeton (2006) categorised 5 capitals - knowledge (intellectual), environmental (natural), financial, social, physical (manufactured) capital. www.environment.gov.au/soe/2006/publications/emerging/capital/index.html