The Current Financial Crisis and Its Potential Impact on Internally Generated Intangible Assets

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Abstract

Many experts consider that the lack of accounting for internally generated intangible assets is, among other factors, to be blamed for the current financial crises. The current accounting regulators have not taken the initiative towards creation of new accounting standard to identify or to allow the capitalization, recognition and/or disclosure of these assets. This failure to properly identify, measure, and/or recognize the activities associated with intangible assets, appear at a time when the accounting standards are in the process of regulatory adjustments due to different view and ideas originating by the SEC, FASB and IASB. This paper explores some of the conceptual issues related to the initial identification of internally generated intangible assets. In addition, we propose an approach to recognize these assets in the financial statements using a hypothetical business combination approach.

Keywords: Financial crisis, Internally generated intangible assets, Identifications, Definitions

1. Introduction

The current financial crisis has inspired numerous discussions in the media, professional and academic communities about the role of financial accounting and audit in corporate governance and management of other organizations. The present financial crisis has transformed the business world in the way we present and report the on-going accounting/economic operations. Soon after the collapse in 2008 of some of the North American financial corporations and banking institutions, many researchers have expressed their opinions and views on the origins as well as have presented solutions to the ongoing crisis. It is believed that the combination of bad bank lending, the unrealistic expectations about the growing financial world without restrictions, the poor credit risk policies are the prime drives for the current and ongoing crisis of 2008. In this paper, we argue that the failure of the accounting framework on the topics of internally generated intangible assets has additionally "fueled the spark" and/or contributed to the current economic crisis. As far as intangible assets are concerned, they have been minor modifications in the accounting standards. The rules are very clear, externally generated intangible assets are capitalized at cost, and internally generated intangible assets are recorded as current expense in the income statement ((FASB 141, 2001), (FAS 142, 2001), (IAS 3, 2007), (IAS 38, 2007)). The difficulties that FASB and IASB as boards that create accounting standards, relate to the issues associated with the initial identification and the ability to properly measure and recognize these types of assets. As it stands, The Financial Accounting Standards Board (FASB) as well as International Accounting Standards Board (IASB) have not taken these accounting problems serious enough and we as academicians and practitioners are still struggling with the identification, capitalization, recognition or disclosure of most internally generated intangible assets. In the past, there have been many researchers [(Barth, Clinch and Shibano 2003) (Roslender and Fincham, 2001, 2004), (Abeysekera, 2006), (Abeysekera, and Guthrie, 2005), (Aboody and Lev, 1998), (Andriessen, 2004), (Basheva, 2004), (Bouwens, J. and M. A. Abernethy, 2000), (Dixit and Pindyck, 1994), (Gelb, D. and Siegel, 2000), (Ittner and Larckler, 2002) (Kohlbeck & Warfield, Sougiannis & Yaekura, 2002) , (Lev, B., Zarowin, 1998), (Lonergan, 2009), (Mayo, 2001) (Meritum, 2002), (Myers, 1997), (Monasco, 1998), (Otley, 1999), (Tomer, 2008), (Upton, 2001)] on the topic of intangible assets that have argues towards the ability to identify, measure, recognize and/or disclosure of these assets. Unfortunately, at the time where the world is facing one of the greatest economic treat due to the bank crisis, we are stills struggling to recognize the activities associated with intangible assets.

There are many positives due to the recent interest by researchers and practitioners on the topics of intangible assets. That is, we see more and more interest in the academia towards understanding of internally generated intangible assets. Without a doubt, the companies and countries that embrace the changes and start to accept the

upcoming accounting for internally generated intangible assets would these would be able to mainly benefit from these resources. These would provide basis for competitive advantage and also bring direct investments into the specific industries that have had relied heavily on intangibles to deliver the products and services. These are steps that need to be undertaken by FASB and IASB in order to ensure that we meet the upcoming demand of our economic reality. We must note though that there are many companies that have started reporting their intangibles (specifically sports companies with their contracts). However, for complete disclosure, we need to ensure that the proper steps are undertaken.

In this paper, we consider the main issues relating to the initial identification of internally generated intangible assets in the context of the definitions of an asset and an intangible asset. In order accomplish this task, we provide an analysis of prior research on this topic. It is critical for the accounting community to understand, where we stand, where we come from, in order to formulate a strategic plan to improve the current accounting framework. As a starting point, we provide evidence on the inconsistency of the current accounting standards (per US GAAP and IFRS) in the treatment of purchased and internally generated intangible assets in relation of their initial identification and recognition. These correspond with the research performed by Cornelli (1971), Schankerman (1998) and OAASB (2008). The inconsistencies would help develop a proposed reporting framework to show that (1) all intangibleassets (internally and externally generated) meet the criteria for assessment (initial identification) and reporting and should be recognized in the financial statements and (2) this issue should receive top priority in the process of implementation of new standards.

2. Definitions of Intangible Assets

IAS 5 (2007), OAASB (2008) defines an asset as: a resource that is “controlled” by the company as a result of a “past transaction” that is expected to contribute towards “future benefits” with “reasonable probability”. The definition of an intangible asset goes further to require that the item in question does not have “physical substance” (IAS 38, 2007) OAASB (2008). In addition, IAS 38 (2007) requires that an intangible asset must be “identifiable” in order to be “distinguishable from goodwill” (paragraph 10). To explain the meaning of ‘identifiable’, paragraph 12 of IAS 38 (2007) OAASB (2008) states that:

> An asset is identifiable if it either:
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> (a) is separable, ie is capable of being separated or divided from the entity and sold, transferred, licensed, rented or exchanged, either individually or together with a related contract, identifiable asset or liability, regardless of whether the entity intends to do so; or
>
> (b) arises from contractual or other legal rights, regardless of whether those rights are transferable or separable from the entity or from other rights and obligations.

IAS 3 (2007) OAASB (2008) is supplemented by illustrative examples of items acquired in business combinations that meet the definition of an intangible asset. The examples are classified under the following headings:

- **Marketing-related intangible assets** (trademarks, trade names, service marks, certification marks, collective marks, internet domain, trade dress, newspaper mastheads, non-competition agreement);
- **Customer-related intangible assets** (customer lists, order or production backlog, customer contracts and the related customer relationships, non-contractual customer relationships);
- **Artistic-related intangible assets** (copyrights for books, plays, films, music, pictures, photographs, operas and ballets, musical works such as compositions, song lyrics and advertising jingles, video and audiovisual material including films, music videos and television programmes);
- **Contract-based intangible assets** (licensing, royalty, standstill agreements, advertising, construction, management, service or supply contracts, lease agreements, construction permits, franchise agreements, broadcast rights, use rights, such as water, air, timber cutting, servicing contracts such as mortgage servicing contracts, employment contracts);
- **Technology-based intangible assets** (patented technology and unpatented technology, software, databases, trade secrets such as formulae, processes and recipes).

There may be certain intangible asset that the company does not intend to use in the normal operations of the business. That is, there might be certain restrictions to the use as well as access to intellectual generated items. We need to properly identify these restrictions and ownerships, as they help us understand the intangible items a little bit better.

If the definition criteria for “control”, “identifiability” and “future benefits” are not met, the direct expenditure is

recognized as an expense or as part of purchased goodwill (IAS 38, 2007). The latter is only if it involves a business combination. Per IAS 38 (2007) external research and development (R&D) expense, there is generally no requirement for separate "intangible expense" line items on the income statement under. In a joint project, Wyatt and Abernethy (2003) state that:

> Intangible expenditures that are not recognizable as assets will therefore not be transparent in the income statement. It will be aggregated into cost of goods sold and/or sales, general and administration expenses. Investors will have to look to non-financial information elsewhere to evaluate the quantum and return on the company's resources allocated to activities of an intangible nature.

That is, we must note that internally generated intangible assets are lost into the income statement. These expenses are then aggregated into the retained earnings which makes it almost impossible to undercover and asset at a later stage. Wyatt and Abernethy (2003) further state that:

> Even if the specific items meet the asset definition criteria, they still will not appear on the balance sheet if they do not meet the asset recognition criteria for assets. Similar recognition criteria focus on two factors: the uncertainty associated with future benefits and a reliable "cost" to record the asset from a verifiable transaction.

IAS 38 (2007) states that an "intangible asset should be recognized if, and only if: (a) it is probable that the future economic benefits that are attributable to the asset will flow to the enterprise; and (b) the cost of the asset can be measured reliably". "Cost" is defined as the amount of cash or cash equivalents paid or the fair value of the other consideration given (for example, shares) to acquire an asset (IAS 38, 2007), and "fair value" is a price from an arm's length transaction. Most jurisdictions adopt similar recognition criteria.

In this paper, we claim that the definition and recognition principles for determining when the value exists are imprecise and not operational. Specifically, most jurisdictions do not provide the criteria to define the "control" principle in the asset definition (Basheva, 2004).

3. Prior Research on internally generated intangible assets on the subject of accounting recognition

Internally generated intangible assets, or intellectual capital are defined as an intangible assets that have developed internally by the company, that have not been previously recognized as an intangible assets (external due to a business combination). In today's accounting literature, internally generated intangible assets, or intellectual capital is most commonly described as consisting of 1) external structure, 2) internal structure and 3) employee competence (Sveiby, 1997).

During 1998-2001 an European research project was conducted (Meritum, 2002). Nine universities addressed different management control and capital market issues related to intangibles. At the end of the project, guidelines for managing and reporting intangibles were proposed to the European Commission. The results from this research were similar to the findings by Sveiby (1997) in the classification of intellectual capital (see categories below):

- Human Capital: the knowledge, skills, experiences and abilities that employees take with them when they leave the firm.
- Structural Capital: the pool of knowledge that stays with the firm at the end of the working day. It comprises the organizational routines, procedures, systems, cultures, databases and so on.
- Relational Capital: all the resources linked to the external relationships of the firm such as customers, suppliers or R&D partners, plus the perceptions that they hold about the company.

In previous accounting research on internally generated intangibles, mainly academicians have tried to put value to these assets and to assess what they bring to an organization (Pfeffer, 2001), (Grojer and Johanson, 1996) (Roslender and Dyson, 1992, 311-329), (Roslender 1997, 9-26). However, most of the research proposals on ways to achieve this have not come with real solutions. There would be always researchers that would argue these resource costs should be capitalized rather than the current treatment of expensing the related costs. We must note that intangible assets are increasingly recognized as an important component in business performance. However, as with any assets or resource, there would difficulties with identifying how to properly account for these assets. Unlike other type of assets, intangibles and mainly human generated assets are questionable as to whether they are owned by the organization or the employee. (Sveiby, 1997). In addition, human capital is not easily quantified (Pfeffer, 2001). From an economic perspective, the intangible assets represents the equilibrium between the demand for and supply abilities to provide future resources and benefits for a company. For a company's end, the supply of human capital is dependent on the supply of the capabilities of the specific employee. In addition, companies need to properly analyze these capabilities and to aggregate them in order to

achieve the ultimate goal of recognition Some might argue that intangible capital is owned by the individuals themselves and that the formal education and work experience are owned by the workers themselves. That is, they are the real owner of the knowledge (Tomer, 2008). These are difficult concepts to prove. In a recent research, Lev (2001) notes that "intangibles are sources of value and competitive advantage, but it is clear from the above list that much of what is commonly regarded as intellectual capital and intangible value drivers would not in fact pass the accounting recognition test".

Disclosure of internally generated intangible assets is not mandatory as per the existing accounting standards in most of the countries (IAS 38, 2007; FAS 141, 2001; FAS 142, 2001). According to the IAS 38 (2007):

> an intangible asset is an "identifiable non-monetary asset, without physical substance, held for use in the production or supply of goods or services, for rental to others, or for administrative purposes". Enterprises frequently expend resources, or incur liabilities, on the acquisition, development, maintenance or enhancement of intangible resources such as scientific or technical knowledge, design and implementation of new processes or systems, licenses, intellectual property, market knowledge and trademarks [including brand names and publishing titles. Common examples of items encompassed by these broad headings are computer software, patents, copyrights, motion picture films, customer lists, mortgage servicing rights, fishing licenses, import quotas, franchises, customer or supplier relationships, customer loyalty, market share and marketing rights. Goodwill is another example of an item of intangible nature which either arises on acquisition or is internally generated.

The allowed disclosure for intenrally generated intangible assets in voluntary. This is due to the inability to meet the accounting criteria required for inclusion in the financial reports, or they are not measured in financial terms (Van Der Meer-Kooistra and Zijlstra, 2001, 456-476). However, we must note that there have been emphasis to incorporate external disclosure in to the notes of the financial statements of companies (Petty and Guthrie, 2000, 241-251; Sveiby, 1989). Many companies, mostly sports bases, produce an intellectual capital statement and provide information to their prospective users on their contents. There are also many companies that use their annual report as the means to release certain non-financial information in the form of disclosures for intangible assets (as well as intangibles).

3.1 The conditional nature of certain intangible assets

In their research, Wyatt, A., Abernethy (2003) discuss that rregulatory authorities are "trying to balance" the accounting between the "relevance of external financial statements and maintaining the reliability and verifiability of the information". Specifically, given the largely conditional nature of internally generated intangible assets, they have argued that the extension of the reporting could threaten the principles of reliability and verifiability, which lie at the heart of the most common accounting framework (Wyatt, A., Abernethy, 2003). In addition, Wyatt, A., Abernethy (2003) believe that rregulatory authorities are faced at an important decisions to an undergoing problem On the one hand, they argue that regulators need to "protect the public interest and investor confidence by ensuring that financial statements are based on information that can be checked and confirmed" (Wyatt, A., Abernethy, 2003). On the other hand, they want to "encourage financial reporting, which holds the information to stakeholders and to support the efficient allocation of resources" (Wyatt, A., Abernethy, 2003). Currently, IASB and FASB do not believe in capitalization and recognition of intangibles. These regulators have always defended the idea of expenses internally generated intangible assets. However, we are at a historical point in time where we need to ensure that we make proper judgments. We need to look at the positives and negatives of inclusion and exclusion of intangible assets into the balance sheet of company. However, before we could start analyzing these possibilities, we need to ensure that we discuss control as a function of an assets. Conversely, internally generated intangible assets typically are not recognized in the balance sheet as an asset. We must note that, we can not recognize an intangible as an assets if we lack of control over the use of the asset or on the expected future benefits (such as rights of control associated with internally generated patent).

Further, Wyatt, A., Abernethy (2003) discuss this asymmetric approach to regulatory reporting of "intangible assets has led to their conservative accounting". As they note in their research, there have been many "concerns about the appropriateness of conservative reporting practices have led to substantial research, and creation of development issues related to intangible asset". We believe that these concerns are reasonable as they have to be discussed prior to inclusion of intangibles into the balance sheet of a company. We as researchers have to ask the difficult questions such as whether proper inclusion could benefit the users or result in actual increase in their costs. In a study by Lev (1998), he notes that it critical to evaluate the company, including the intangible assets and their costs. He further have suggested that is better t underestimates the assets and this could result in

reduction in the quality of financial reporting and accounting profits. In his research, Canibano (2000) notes that we need "to provide the users of financial statements with relevant information for investment and credit decisions" and "that standard setting bodies should develop guidelines for the identification of intangible elements, and set criteria for their valuation and adequate standards for financial reporting". This clearly notes that there is a great need to reassess the current accounting framework and to ensure that we properly evaluation all the options prior to deciding whether it would be appropriate to include intangible assets into the balance sheet of a company.

4. Identification of Internally Generated Intangible Assets

In their research OAASB (2008) stated, IFRS 3 Business Combinations does not distinguish between the methods that originate the acquired intangible asset. This corresponds to the concept of identifiability discussed above. Therefore, an intangible item occurs when it satisfies the definition of an asset and it is"controlled by the entity as a result of a past event and from which future economic benefits are expected to flow" (OAASB, 2008).

Next, we need to determine the cases that would prompt the identification of an asset. As we have noted above, per IFRS 3, the method in which an intangible item arises is not a determinant of whether it meets the definition of an asset. In order to justify the existence of intangible assets, we need to analyze past transactions which involve past costs, future benefits, control and nonphysical existence. It must be mentioned that it is not necessary for costs to be incurred in generating an asset (Edvinsson and Malone, 1997) (OAASB, 2008). In order to determine the event that would justify identification of an internally generated intangible asset, we should consider the different ways by which such assets could be created. For the purposes of this paper, we would use the definitions of internally generated intangible assets created by the Office of Australian Accounting Standards board (OAASB) (2008):

(a) planned internally generated intangible assets - those created out of a discrete plan, the objective is to create the assets; and

(b) unplanned internally generated intangible assets - other internally generated intangible assets that arise from the day-to-day operations of a business.

Further, OAASB [2008], notes that the distinction between planned and unplanned internally generated intangible assets is determined by management in the way "it organizes its intangible asset generating activities". OAASB (2008) goes further to explain:

> The identification of a planned internally generated intangible asset would be associated with the incurrence of costs reliably attributable to the asset from inception of the plan. Some may be particularly concerned by the identification of assets and their treatment being determined by the quality of the cost attribution accounting system. Planning is a forward-looking exercise whereas cost measurement is essentially a backward looking exercise. Some argue that planning may make cost determination easier, but it does not necessarily follow that the lack of planning would preclude a reliable cost determination, although cost accumulation may commence earlier when there is a plan.

5. Method for Identifying Internally Generated Intangible Assets

In order to identify the intangible assets as defined by IAS 38/IFRS 3, we could use a "hypothetical business combination approach" (OAASB, 2008). The use of this approach would prevent overlooking some of the assets and not properly identifying all intangible assets. In this approach, companies would be able to identify all intangibles, when there is no business combination that takes place. That is, the usual procedures, carried by organizations subject to a business combination (revaluation, due diligence, ect) need to take place.

In a recent research, Bloom (2009) discussed some of the ongoing accounting problems for internally generated and purchased goodwill. In his research, Bloom (2009) concludes that "despite the general recognition that, in practice, the two classes of goodwill were indistinguishable in terms of their ability to generate streams of revenue" (p.379). Lonergan (2009) goes further and notes that "acquired goodwill can be sheltered by unrecognized internally generated goodwill and unrecognized identifiable intangible asset values (this is not supposed to happen, but it frequently occurs in practice)" (p 390). That is, the proposed model should recognize goodwill, not based on its origin but rather whether it exists. This provides us with further premise to apply a hypothetical business approach in order to identify the value of internally generated intangible assets (as an overhaul process). In an article by Britton Manasco discussed by OAASB, [2008], Dow Chemical tested to see if it would be appropriate to incorporate the identification of 'patents' and also argued whether we need to take similar undertakings for other types of assets.

In each business combination, there are different events and circumstances that shape up the deal. In a 'friendly' business combination compared to a 'hostile' business combination, the "typical due diligence is typically possible" (OAASB, 2008). In their Discussion Paper, OAASB (2008) observe:

> Presumably an entity knows more about its existing internally generated intangible assets, the intangible assets it acquires in a business combination, particularly compared with a hostile business combination, because it has been involved in their creation.
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> The method based on hypothetical business combination has similarities with aspects of step two of the two-step approach for impairment testing goodwill that was proposed as part of Phase I of the IASB Business Combinations project … That step involved the determination of the implied value of goodwill, which in turn was effectively determined using a hypothetical business combination technique.

Examples identified by OAASB (2008) of possible indicators may include the following:

> (a) a documented discrete plan to create a particular intangible asset. The existence of the plan would cause management to consider whether an internally generated intangible asset exists;
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> (b) a documented strategy to manage an asset that, although not developed under a discrete plan, exists at reporting date and has been identified by management as worthy of its attention. This is similar to the approach taken in IFRS 5 Non-current Assets Held for Sale and Discontinued Operations, whereby an asset cannot be classified as held for sale unless the appropriate level of management is committed to a plan to sell the asset, and an active programme to locate a buyer and complete the plan has been initiated (see paragraph 8 of IFRS 5); and
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> (c) an external source, such as an uninvited offer from a third party to acquire an internally generated intangible asset that had not previously been identified by management.
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> The benefit of these methods is that they might be less costly than the hypothetical business combination technique. A disadvantage is that it risks the non-recognition of certain internally generated intangible assets that satisfy the Framework's/IFRS 3's asset recognition criteria.

6. Conclusion

This paper explores some of the conceptual issues related to the initial identification of internally generated intangible assets. In addition, we analyze an approach to recognize these assets in the financial statements using a hypothetical business combination approach. The use of this approach would ensure that all intangible assets are properly identified and that we do not missed recognition of internally generated items. This method would also ensure that companies are able to identify all intangibles, even if there is no business combination that takes place. However, this needs to be done periodically, or at least every year. There should be certain conditions that need to be met such as for impairments of intangible assets (goodwill). Such method would enable the users and it could be argued that the benefits would exceed the respective costs.

References

Abeysekera, I. (2006). The project of intellectual capital disclosure: research the research. *Journal of Intellectual Capital,* Vol. 7 No. 1, pp. 61-77.

Abeysekera, I., and Guthrie, J. (2005). An empirical investigation of annual reporting trends of intellectual capital in Sri Lanka. *Critical Perspectives in Accounting,* Vol. 16 No. 3, pp. 151-63.

Aboody, D., and Lev, B. (1998). The Value Relevance of Intangibles: The Case of Software Capitalization. *Journal of Accounting Research*, Vol. 36, Supplement, pp.161-90

Andriessen, D. (2004). *Making Sense of Intellectual Capital: Designing a Method for the Valuation of Intangible*s. Elsevier, Amsterdam.

Barth M.E., Clinch G., and Shibano. (2003). Market effects of recognition and disclosure. *Journal of Accounting Research*, Vol. 41, No. 4, pp. 581-609.

Basheva, S. (2004). *Principles of Accounting*, УИ, Стопанство pp.60-988.

Becker, B., et al. (2001). *The HR scorecard: linking people, strategy and performance*. Cambridge, MA, Harvard Business School Press, pp.80-111.

Bloom. (2009). Accounting for Goodwill, Journal of Accounting. *Finance and Business*, Vol 45, Issue 3, 379-389.

Bouwens, J., and M. A. Abernethy. (2000). The Consequence of Customization of Management Accounting System Design. *Accounting Organization and Society*, Vol. 24, No. 2, pp.50-68.

Cañibano, L., García-Ayuso, M., and Sánchez, P. (2000). Accounting For Intangibles: A Literature Review. *Journal of Accounting Literature*, 19: 102-130.

CFA. (2007). Institute Centre for Financial Market Integrity., A Comprehensive Business Reporting Model: Financial Reporting for Investors. July, Charlottesville, Virginia

Cornelli, F., and M. Schankerman. (1998). Patent renewals and R&D incentives*. In Centre for Economic Policy Research*, Vol. 1971, pp.119-123

Dixit, A., and R. Pindyck. (1994). *Investment under Uncertainty*. PrincetonUniversity Press, pp.45-59

Edvinsson, L., and Malone, M.S. (1997). *Intellectual Capital: Realising Your Company's True Value by Finding its Hidden Brainpower.* Harper Collins, New York, NY, pp.8.

FASB 141. (2001). Financial Accounting Standards Board, Statement No. 141 *Business Combinations*.

FASB 142. (2001). Financial Accounting Standards Board, Statement No. 142 *Goodwill and Other Intangible Assets*.

FASB 157. (2007). Financial Accounting Standards Board, Statement No. 157*Fair Value Measurements,* FASB, 2007

Gelb, D., and Siegel, P. (2000). Intangible assets and corporate signaling. *Review of Quantitative Finance and Accounting,* (15), p. 307-323.

IAS 16. *Property, Plant and Equipment*, IASB, London.

IAS 3. (2007). International Accounting Standards No. 3 *Business Combinations,* IASB, London. 2007

IAS 36. (2007). International Accounting Standards No.36. *Impairment of Assets, 2007*

IAS 38. (2007). International Accounting Standards No. 38 *Intangible Assets*, IASB, London. 2007

IFRS 5. *Non-current Assets Held for Sale and Discontinued Operations*, IASB, London.

Ittner, C. D., and Larckler, D. F. (2002). Determinants of Performance Measure Choices in Worker Incentive Plans. *Journal of Labor Economics*, Vol. 20, No. 2, pp.S58-S90.

Kohlbeck & Warfield, Sougiannis & Yaekura. (2002). *The Role of Unrecorded Assets in the Residual Income Valuation: The Case of Banks.* University of Wisconsin, pp.1-12.

Lev, B. (2001). *Intangibles: Management, Measurement and Reporting*. Brookings Institution Press, Washington, DC.

Lev, B., & Zarowin P. (1998). The boundaries of financial reporting and how to extend them. *NYU Working paper,* pp.1-40

Lonergan, W. (2009). Discussion of Bloom. *Abacus*, Vol. 45, No. 3, pp.390-396.

Mayo, A. (2001). *The human value of the enterprise: valuing people as assets – monitoring, measuring, managing*. London, Nicholas Brealey, pp.1-307

Meritum. (2002). Guidelines for Managing and Reporting on Intangibles, ed. L Cañibano, P. Sanchez, M. Garcia-Ayuso, and C. Chaminade. Fundación Airtel Móvil. (www.eu-know.net), Madrid, pp. 61-3

Monasco. (1997). Dow Chemical Capitalizes on Intellectual Assets. *Knowledge Inc*, March. pp. 1-4.

Mouritsen, J. (1998). Driving growth: economic value added vs intellectual capital. *Management Accounting Research,* Vol. 9 No. 4, pp. 461-82.

Myers, S. (1977). Determinants of Corporate Borrowing. *Journal of Financial Economics*, Vol. 5, pp. 147-175.

Office of Australian Accounting Standards board (OAASB). (2008). Discussion paper on initial accounting for Internally generated intangible assets. *Commonwealth of Australia,* pp.1-83.

Otley, D. (1999). Performance Management: A Framework for management control system research. *Management Accounting Research,* Vol 10, pp. 363-82.

Roslender, R. (1997). Accounting for the worth of employees: is the discipline finally ready to respond to the challenge?. *Journal of Human Resource Costing & Accounting*, Vol. 2 No. 1.

Roslender, R., and Dyson, J.R. (1992). Accounting for the worth of employees: a new look at an old problem. *British Accounting Review*, Vol. 24 No. 4.

Roslender, R., and Fincham, R. (2001). Thinking critically about intellectual capital accounting. *Accounting, Auditing & Accountability Journal,* Vol. 14 No. 4, pp. 383-398.

Roslender, R., and Fincham, R. (2004). Intellectual capital: who counts, controls? *Accounting and the Public Interest,* Vol. 5, 2004, pp. 38 – 45.

SAC 4. (2005). Australian Statement of Accounting Concepts 4. *Definition and Recognition of the Elements of Financial Statements.*

Sveiby, K.-E. (1997). *The New Organisational Wealth: Managing and Measuring Knowledge-Based Assets.* Berrewt-Kohler, San Francisco, CA, pp.143 – 153.

Tomer, J.F. (2008). *Intangible Capital: its Contribution to Economic Growth, Well-Being and Rationality*. Edward Elgar, Cheltenham.

Upton. (2001). *Business and Financial Reporting, Challenges from the New Economy*. Financial Accounting Series, FASB, Norwalk, Connecticut, pp. 20-22.

Wyatt, A., & Abernethy, M. (2003). *Framework for Measurement and Reporting on Intangible Assets*, Intellectual Property Research Institute of Australia, pp. 1-40.