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## Intellectual Capital- The Game Changer of Contemporary Business: NextGen Thinking for Stakeholders

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### **Abstract:**

*Purpose– The aim of this paper is to reflect on how intellectual capital (IC) as a strategic, mission-critical resource could be pragmatically, yet powerfully leveraged as a value-driven process by contemporary organizations.*

*Design/methodology/approach– This article is based on the authors’ reflections of the past and vision for the future to identify and tread on paths useful for theoretical and practical relevance from the IC research perspective. Referred published studies and seminal works were analyzed and then systematized.*

*Findings– IC literature is rich in theory matured over the past two decades. The work of scholars, practitioners and thought leaders need to be integrated to pave the way for an empowered, maximization approach to reap the benefits of IC by all stakeholders through the prism of current research insights*

*Practical implications–It is hoped that the implication of this paper for IC research and practice is to evolve a leading edge approach.*

*Originality/value– The paper is a first attempt to present “an optimization IC model of business” It provides a deeper understanding of how companies can create and realize value for impact. It is also the first study that uses the IC optimization model of the “input-output-outcome-impact-value of impact” genre using the most popular contemporary IC models in theory and practice with focus on the need of the hour, that is, leveraging critical and per formative research literature.*

*Paper type -Conceptual paper*

**Keywords:** Intellectual Capital, Value Process Framework, Sustainable Stakeholder Capitalism

### **1. Introduction**

IC plays pivotal role in success of organizations (Stewart, 1997a; 1997b) as they create value and “true competitive advantage” (Ratnatunga et al., 2004, p. 78). More so in today’s knowledge-based economy in which intangible elements are seen as essential elements for value creation in companies and for economic wealth (Lev, 2001; Burgman et al., 2007; Silvestri and Veltri, 2011; Marti’n and Delgado, 2012). Intellectual Capital (IC) basically refers to: “human capital: the knowledge embedded in people; structural capital: the knowledge embedded in the organisation and its systems; and relational capital: the knowledge embedded in customers and other relationships external to the organisation” (Guthrie et al., 2012). Capital market agents do not value intellectual capital because they cannot comprehend it (Holland and Johanson, 2003).

☆ *Intellectual Capital in the management and legal literature, intangibles in the accounting literature and knowledge assets used by economists refer essentially to the same thing and are used interchangeably (Lev, 2001, p.5)*

Ironically enough, market value of stocks of many companies is higher than the replacement cost of their tangible assets (Sveiby, 1997b; Dumay, 2009a). However core competences easily translate in to core rigidities when surrounding context change. (Leonard-Barton, 1992). Hence the knowledge capital is significant. Knowledge means filling in the gaps with experience, sensitiveness and creativity (Marzo, 2014, p.52). This would open the door to the shift from the measuring paradigm to a learning paradigm (Yu and Humphreys, 2013).

The International Integrated Reporting Council (IIRC) has placed the “value creation story” of IC front and centre into the global push to promote integrating reporting (IR) for large listed companies (Dumay, 2014, p.19). Yet, there is a lack of per formative studies, the reason being lack of time and resources required, alongside gaining access to investigate inside organizations that may be reluctant to have researchers examine what they see as key capabilities driving their competitive advantage (Alvesson and Deetz, 2000, p. 193). Hence, there is the emerging call for more practice-based IC research (Dumay, 2014, p.2) “based on a critical and per formative analysis of IC practices in action”.(Guthrie et al., 2012, p. 69). To strengthen this further on, the current interest in IR, is revitalising interest in IC and other “capitals” and how these can be used to “create value” (IIRC, 2011; Abeysekera, 2013). The development of IR ( IIRC, 2011) “that incorporates a range of financial and non-financial information necessary for effective decision-making and risk management in the current business and financial environment” (Wild and Van Staden, 2013, p. 6) IC and other forms of capital (Abeysekera, 2013).

## 2. Knowledge organizations in the world of Intellectual Capital (IC)

According to Giesen et al., (2010), a joint IBM and Carnegie Mellon Tepper School study analyzed the 2007 and 2008 financial performance of business-model innovators that participated in the IBM’s Global CEO Study 2008. This analysis found the strongest margin performance was realized by those companies that, like Li & Fung, entered the downturn with significant financial means and leveraged their resources to drive industry-model innovation. It was also revealed that during periods of extensive industry change, companies can choose to shake up their industries – by harnessing disruptive technologies, going after new customer segments or dislodging competitors. Companies that don’t respond quickly will likely become uncompetitive in short order (Figure 1). In an increasingly complex and fast-changing business environment, organizations have to rethink and revisit their business model more frequently than in the past. They need to continually tweak and enhance their models, especially during periods of economic turmoil and increased industry transformation. But designing the right business model is only the first step. To increase execution success, organizations need to ensure their business models are aligned with customer value (and continually updated), are analytical (they gain in sight from differentiated intelligence), and are adaptable (they are enabled by a flexible operating model) According to Giesen et al., (2010, p. 25). Financial performance depends on how well a company manages all of the tangible and intangible assets in its Value Platform (Eccles et al., 2001, p. 214). Hence, competitive advantage is based on the command of and access to effective utilization of its resources and knowledge (Porter, 1980; Barney, 2001; Hamel and Prahalad, 1994).

However, knowledge-focused strategies are effective rather than efficient (Sveiby, 1997a, p. 147). However, the conditions (Eisenhardt and Brown, 1998; Williamson, 1999) that shape the competitive environment for knowledge-intensive organizations are the following: (a) the market place is evolving and its boundaries are unclear. The concept of industry is critical to operation of traditional tools of strategy and is inappropriate to the contexts (b) rapid rate of change and technological innovation means organizations have to be flexible and agile vis-à-vis strategy and structure. The disruptive impact of technology and faster time-to-obsolence personify this competitive domain (c) markets and their operating environments are becoming more complex since traditional industries converge and supply of products and services (and solutions) increases in diversity. Shorter product / service life cycles blur the distinction between products and services, more discerning and knowledgeable customers add to the increasing complexity of the competitive ecosystem (d) there is a high percentage of knowledge and information components in products and services. Neither are well understood nor adequately dealt with in traditional strategy models and (e) the increasing importance of intangibles is a key driver. Many companies are knowledge-intensive and dependent on their human capital for success. This calls for an organization that is built to support the creative process of these individuals as well as the conversion of ideas into marketable products and services (Rylander and Peppard, 2003). Market values of companies rich in intangible assets tend to fluctuate a lot in line with general economic cycles and the mood among investors. Microsoft and other firms with high market-to-book ratios are like icebergs bobbing up and down as investors change their views about what might be going on under the surface (Sveiby, 1997a, p. 4). Overvalued shares are good; they provide cheap currency for acquisitions and boost stock option gains. But overvalued shares are a calamity in the making. An inflated stock is bound to drop to earth. When this happens, few managers survive investors’ wrath, trial lawyers’ pursuit and the board’s search for culprits. Not to mention of the advisability of acquiring businesses with inflated shares – propagated by investment bankers in search of a buck – which is a fairy tale (Lev, 2012, p. 307). Hence, transformational business model innovation (Figure 1) calls for an innovative paradigm. The paradigm is Holistic Intellectual Capital Aligned Business (HICAB).

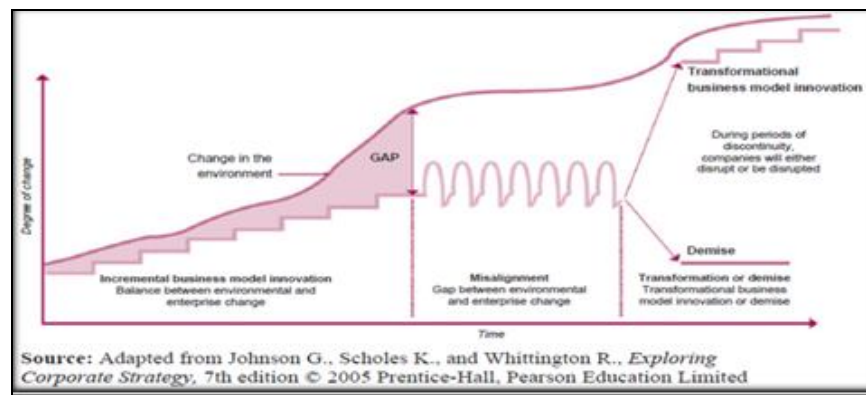


Figure 1: Factors driving the need for business model innovation

### 3. Hitting the IC Bull's Eye in the Contemporary World

Strategy is used to develop and sustain current and competitive advantages for a business (D'Aveni et al., 1995), and to build competitive advantages for the future (Hamel and Prahalad, 1994). This provides the business the capability of implementing cost and differentiation advantages (Porter, 1980; Barney, 2001) or both (Hamel and Prahalad, 1994). Traditional models and theories and the assumptions that underpin them are no longer valid in the current competitive conditions. This assertion is not new (Bettis and Hitt, 1995; Campbell and Alexander, 1997; Courtney et al., 1997; Coyne and Subramanian, 1996; Eisenhardt and Brown, 1998; Hamel, 1998; Markides, 1999; Normann, 2001). Currently, intangible resources are the main source of wealth, prosperity, economic growth (Dunning, 2000; Edvinsson and Kivikas, 2004; Corrado et al., 2009), and core competencies (Dunning, 2000; Contractor and Lorange, 2002; Ghitu-Brațescu et al., 2010). According to Ståhle and Ståhle (2006), the IC and competitiveness of nations are strongly related, both being results of the knowledge within countries. Malhotra (2003) defined knowledge within a territory as the intangibles that have effects on national growth.

### 4. Market value Outweighs GDP of Nations

Extreme volatility and a lively debate about the relative valuations of Old and New Economy companies provide two good reasons to question the accuracy with which today's markets set stock prices. A third is the high degree of concentration in market value. For example, 5 percent of the companies listed on the NASDAQ weighted with high-tech accounting for 75% of the total market value of all companies listed. The top 10 companies alone accounted for about 56 percent of market value (Eccles et al., 2001, pp.45-46). When the growth in value becomes concentrated in a small number of companies, the rich get richer; the poor have lots of company (Eccles et al., 2001, p. 47). The 2010 annual data of World Federation of exchanges (accessed on 25<sup>th</sup> December 2013) support this proposition. Data for the year 2012 available on the World Bank website (accessed on 25<sup>th</sup> December 2013) on market capitalization (also known as market value) of listed companies as a percentage of GDP of the countries (Switzerland 171; Malaysia 156; Singapore 150; Luxembourg 127.5; UK 122.2; USA 114.9; Canada 110; France 69.8; India 68.6) denote the criticality of market value to national economies. Now is the irony. In a survey of CFOs and heads of investors of relations in 200 large US companies conducted by Market & Opinion Research International (MORI) for PricewaterhouseCoopers, 61 percent of the respondents felt that their companies' stocks were undervalued. Another 31 percent felt that their stocks were properly valued and only 5 percent felt that the stocks were overvalued. Managers, who have often stock options and are only humans, generally tend to place their company's worth higher than the market does. After all, these managers have information about their company that the market doesn't. (Eccles et al., 2001, p.48). The market can get it wrong as well, and it often does so because it lacks the right kind of information. That lack leads to uncertainty and results in more conservative projections of revenues, earnings and cash flows. Uncertainty can also increase the perception of risk, which results in a higher discount rate being applied to profit projections because of the higher cost of capital. No one is forcing these companies to rely exclusively on sell-side analysts to report performance information to investors. The companies can take on the responsibility themselves (Eccles et al., 2001, p.49). Executives who feel that their company's shares are being undervalued should seriously consider if it is because of the lack of information. What is more, of the 1,700 professionals (sell-side analysts, buy-side analysts, portfolio managers etc.) surveyed by Rivey Research Group for Investor Relations magazine, 78 percent said they did not recommend or invest in a stock because of inadequate information (Eccles et al., 2001, p.50)..

### 5. The Popular IC Framework – A Benchmark for Business Organizations

Different intellectual capital reporting frameworks have proliferated over the last two decades. From the perspective of the various intellectual capital frameworks, these appear to suffer the problems of proliferation, the confusion as to which framework should be used to best communicate to stakeholders (Sveiby, 2004). Yet, a broad consensus exists that IC comprises three major categories: human (employee) capital, internal (structural) capital and external (relational) capital. (Striukova et al., 2008). For, according to Toth and Jonas (2012, p.317), Sveiby (1997a) a pioneer of intellectual capital studies refers to human capital as the employees' competence, structural capital as internal structure, while relational capital as external structure.

Most commonly used is a framework that is modified from Sveiby's (1997a) original work, consisting of 18-24 elements within the three categories (Whiting and Miller, 2008, p. 27) based upon one of the most popular classifications by Sveiby (1997a), who classifies IC as internal structure, external structure and employee competence. This classification of IC by Sveiby (1997a), is often referred to and adopted by the IC literature (April et al., 2003; Abeysekera and Guthrie, 2005; Wong and Gardner, 2005; Whiting and Miller, 2008), with slight modification of the terminology of the categories into internal capital, external capital and human capital (Anam et al, 2011). Hence, IC is mainly classified into three categories previously proposed by Sveiby (1997A) as internal capital, external capital, and human capital (Haji and Mubaraq, 2012, p.189). Most of the prior research studies use content analysis to code the disclosure of both qualitative and quantitative IC attributes in annual reports of companies and other published materials. Three IC categories: external capital, internal capital and human capital developed by Sveiby (1997a) became a common framework used by more recent research studies. In developing the IC Disclosure (ICD) checklist, internal capital, external capital, and human capital, developed by Sveiby (1997) was used as a starting point (Haji and Ghazali, 2012, p. 384). The attributes of the three IC categories are derived from previous research studies (Guthrie and Petty, 2000; Kamath, 2008b; Yau et al., 2009; Yi and Davey, 2010, Liao et al, 2013). Guthrie and Petty (2000) used Sveiby's (1996, 1997c, 2001, 2003) framework of analysis to identify IC disclosures (Oliveras et al., 2008)

According to Roslender (2009, p. 346), while the Skandia Navigator and Balanced Scorecard have both attracted substantial attention, a third scoreboard approach is regarded by many in the field to be the most attractive. Developed by Sveiby, the Intangible Asset Monitor again incorporates four dimensions, designated: (parenthesis ours)

- Employee competence (aka Human Capital);
- Internal structure (aka Internal Capital);
- External structure (aka External Capital) ; and
- Financial (aka Financial Capital) (Sveiby 1997a, b).

Roslender's (2009, p. 346) perspective could be explained by (Figure 2) a simple, yet a powerful strategy map to say that Human Capital *synergises* internal capital that *catalyzes* external capital *galvanizes* financial growth.

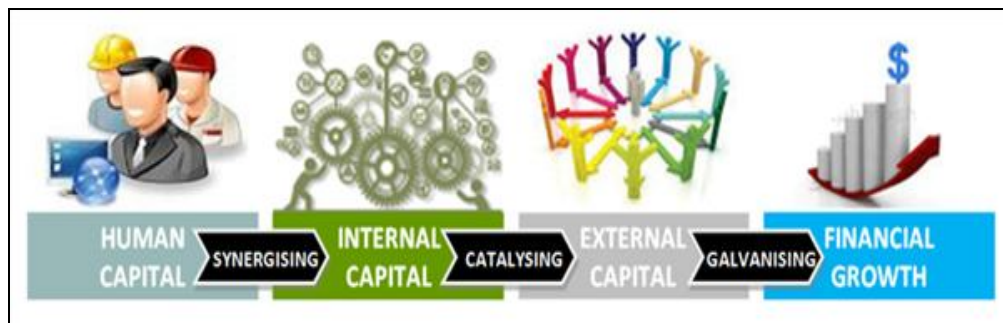


Figure 2: IC Strategy Map for contemporary organizations (Anthony, Thiagarajan and Utpal, Baul)

The framework developed by Sveiby (1997a) is popular having been used by many scholars in their empirical research (Brennan, 2001; Goh and Lim, 2004; Wong and Gardner, 2005). From Sveiby's (1997a) intangible asset monitor and Kaplan and Norton's (1996) balanced scorecard, increasingly sophisticated scorecards have been developed (Liebowitz and Suen, 2000; Mouritsen et al., 2001a; Wall and Doerflinger, 1999). Some of the studies fashioned on the Sveiby (1997a) model of optimization by scholars are the following:

- *On IC in Organisations* (Sveiby, 2001; Galbreath, 2002; Goh and Lim, 2004; Boedker et al, 2005; Steenkamp and Kashyap, 2010; Toth and Jonas, 2012)
- *On IC Reporting / Disclosure* (Brennan, 2001; April et al, 2003; Bozzolan et al., 2003; Junaid, 2004; Cordozza, 2005; Vandemaele et al., 2005; Guthrie et al., 2006; Bozzolan et al., 2006; Abeysekera, 2007; Sujana and Abeysekera, 2007; Abeysekera, 2008; Whiting and Miller, 2008; Abeysekera, 2008; Schneider and Samkin, 2008; Sonnier et al., 2008; Xiao, 2008; Oliveras et al., 2008; Roselander, 2009; Yi and Davey, 2010; Khan and Ali, 2010; Whiting and Woodcock, 2011; Vafaei, et al., 2011; Ousama et al., 2011; Nurunnabi, 2011; Haji and Mubaraq, 2012; Haji and Ghazali, 2012; Liao et al., 2013; Mondal and Ghosh, 2013; Abhayawansa, 2014)
- *On IC to Capital market participants* (Dumay and Tull, 2007; Lee and Guthrie, 2010; Abhayawansa and Guthrie, 2010; Abeysekera, 2010; Abhayawansa, 2011; Abhayawansa and Guthrie, 2012)

Intellectual capital has become a key set of resources for gaining advantage in a business environment that transcends fixed geographic boundaries (Lev, 2004). But according to Holland and Johanson (2003), those capital market agents do not value intellectual capital because they cannot comprehend it.

## 6. Towards a New Business Model: Holistic, interdependent Capitals as the catalyst for Intellectual capital efficacy

If up to say 80 per cent of a firm's value, represented by IC, was not recorded on the balance sheet, an opportunity to understand how IC resources could be linked to value creation could be lost (Brennan and Connell, 2000; Guthrie, 2001). The organization has a pool of resources to carry out its mission, and these resources are the different dimensions of capital (financial, intellectual, social, and

environmental). These four dimensions of organizational capital interact with each other in helping to enact organizational mission, which is translated into strategies (with a long-term action plan, that spans more than a year) and tactics (with a short-term action plan, that spans less than a year). The organization's mission as the purpose of existence is to reach its vision (ideal future organizational state) through its day-to-day activities. The organization has a pool of resources to carry out its mission, and these resources are the different dimensions of capital (financial, intellectual, social, and environmental). (Abeysekara, 2013, p.232) An organization's tactics and strategies can enable the interaction of different dimensions of capital to achieve the organizational vision – a strategic vision. The strategic vision is bi-directional rather than uni-directional, and informs actions and their feedback to improve strategy formulation by the board of directors. The strategists (the board of directors) can assume various visionary styles such as being original on organizational content, being original on future potential of products and services, perfecting the existing organizational content and context, and/or being original on organizational context (Westley and Mintzberg, 1989).

The resources embedded in each capital dimension can interact with each other in various permutations and combinations to generate financial performance, non-financial performance, environmental performance, and social performance. These capital interactions when enacted through an organization's tactics and strategies on a day-to-day basis can translate into various performance dimensions. An action can require the use of more than one capital dimension, and the implication of that action can result in more than one performance dimension. The choice of permutations and combinations to generate various dimensions of organizational performance is determined by the choice of organizational tactics and strategies. Hence, the senior management has an important role in determining the choice of tactics and strategies, ensuring that they underpin the organizational values and work towards reaching the organizational vision. (Abeysekara, 2013, p.233)

Human capital, structural capital, relational capital, innovation capital, process capital, psychological capital, physical and financial capital, social capital, cultural capital, knowledge capital, statutory capital, information and legal capital, investor capital, location capital, supplier capital, political intangibles are some of the capitals dealt with by extant research literature. Integrated reporting (<IR>) brings together *material* information about an organization's strategy, governance, performance, and *prospects* in a way that reflects its *commercial*, *social*, and *environmental* context (Monterio, 2013).

There is a belief among financial accountants that market value and future profits (two contemporary grand theories of IC) have already been factored into the value of the firm, regardless of the drivers of value or future profits (Dumay, 2012, p.5). These grand theories represent barriers to the use of IC practices by many mainstream organizations (Dumay, 2012, p.6). To progress this agenda, practitioners and academics need to abandon grand theories and develop what Llewellyn refers to as differentiation theories of practice (Llewellyn, 2003, pp. 670-2). In support of this, Guthrie ET al., (2012) in their study of ten years of published IC research (2000-2009) has identified an emerging "third stage" of IC research. This theory opines that the focus of past research into IC has in the past been to blame for some of the lack of adoption of IC because of "a concentration of top-down ostensive research instead of bottom-up performative research" (see also Dumay, 2009a, 2009b). Grand theories are "formulated at a high level of generality and reflect ideas that have been arrived at by thinking through the ideas and relationships in an abstract way – rather than being derived from empirical research". (Llewellyn, 2003, p. 676), the researcher must develop the skills required for *critical* (Alvesson and Deetz, 2000, p. 20) and *performative research* (Mouritsen, 2006, pp. 829-32). Hence, this paper is an attempt to cause people to think more clearly about what IC is and how it can be better managed to create value in the "new economy" (Dumay, 2012, p.13)

## 7. Value Process Framework

Empirical evidence on the actual contribution of IC to the dynamics of the value creation process remains scarce (Mention and Bontis, 2013). But, the value-process framework will help managers to enhance the quality of their strategy development (Kern and White, 2003; Jelassi and Enders, 2004). The value chain framework helps to address the question of how value is created within a company (Porter, 1980). Porter's five forces provide a comprehensive framework to determine the extent to which companies operating within an industry are able to capture the value they create. Competitive advantage results from a firm's ability to create value for its customers and to capture parts of this value in form of profits (Brandenburger and Harbone, 1996). Value is defined as "a price that a customer is prepared to pay for the product if there is only a single source of supply". (Bowman and Ambrosini, 2007), to capture parts of this value created, it must also be larger than the value created by competitors (Barney, 1991). In contrast to the market-based perspective of the five forces framework, the resource-based view of strategy concentrates on the internal resources and capabilities of a company. The VRIO framework, which was developed by Jay Barney, one of the originators of the resource-based view, addresses four questions dealing with Value, Rarity, Imitability and Organization (VRIO) to determine whether internal resources and capabilities are potential sources of competitive advantage relative to competitors (Barney, 2002). The value-process framework implicitly integrates the two perspectives of the resource-based and the market-based views of strategy (Enders et al., 2009, pp.94)

To succeed, a firm must not only be able to create superior value over a sustained period of time, but it must also be able to capture the value created in form of economic profits. In other words, to achieve a sustainable competitive advantage, any company needs to address these levers to positively influence value creation and value capturing. a conceptual tool that would help managers to integrate the findings from strategy frameworks such as the value chain, the five forces or the VRIO framework by jointly analyzing the different levers of competitive advantage. (Enders et al., 2009, p.93). The value process framework focuses on (a) Value creation and capturing are ultimately the only two levers of strategic management. All other concepts in the field of strategic management serve to address one or both of these two core dimensions. (b) When creating value, a company needs to focus on the use value as it is perceived by customers. Only value that is considered as such by customers will eventually translate into value created. (c) In order to maximize the value created, a company needs to optimize the trade-off between perceived use value and costs. (d) In order to limit the

size of the competitive discount, the value created has to be somehow unique.(e) In order to sustain a competitive advantage into the future, a company needs to ensure that its value created is difficult to substitute or imitate, since only value created that can be shielded against current and future competitors will ultimately lead to sustainable high profitability (Enders et al., 2009, pp.93-94).

## 8. A New Value Framework

Conventional measurement techniques mainly focus on inputs and outputs. Rarely do they consider the outcomes and impacts. This is because their significance is not fully understood and they are not measured by conventional techniques. Emerging impact measurement techniques address these shortcomings by developing an understanding of the relationship between businesses' inputs and activities, their outputs and their longer term outcomes and associated impacts (Figure 3) And business is not alone. Organizations like the International Integrated Reporting Council (IIRC) Global Reporting Initiative (GRI), Impact Reporting and Investment Standards (IRIS) and Sustainability Accounting Standards Board (SASB) are developing frameworks which look at how to balance financial reporting with the social and environmental impacts of business activities. But what these lack is a robust and comprehensive approach to measuring impacts. (PwC, 2013, p.13)

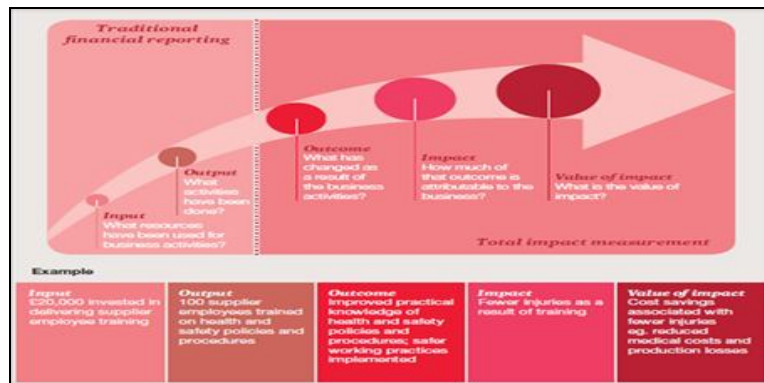


Figure 3: Measuring and managing what matters (PwC, 2013, p. 12)

To increase the probability of adding value in the value creation process, a business enterprise needs to articulate the link between their strategy and what knowledge is required to execute the strategy (Zack, 1999; Allee, 2000). The linkage between strategy, knowledge and performance of business is the strategic context of the business (Zack, 1999). As a result, to define and manage intangible assets, it must be aligned with the strategy of the organization and understood what is to be done with them (Stewart, 1999). Today, intangible assets are aligned with the business strategy (Sullivan, 1998; Stewart, 1999; Klein, 1998) and the value chain is aligned with the business strategy (Stewart, 1999; Sullivan, 2000; Boar, 1994; Porter, 1980). Incorporating intangible assets in the value chain of a business enterprise provides a first step to aligning intangible assets to value creation with its business strategy. (Green and Ryan, p.46). Intangible assets are aligned with organizational success and are a by-product of 'organizational design' (Sullivan, 1998). Yet, what makes it more difficult is that non-financial measures vary among different organizations and largely depend on the internal policies of the individual organization (Joshi et al, 2010)

Intangible assets are aligned with organizational success and are a by-product of 'organizational design' (Sullivan, 1998). We attempt such a design (Figure 4) chiseled on global IC thought leadership (M'Pherson and Pike, 2001, p.252; Sveiby, 1997a, p. 195 ; Pulic, 2000, p. 714; ; Lev, 2001, p.111 ; Daum, 2002; Eccles et al., 2001; DiPiazza and Eccles, 2002; Tovstiga and Tulugurova, 2009, p. 72; Eccles and Krzuz, 2010; Delaney, (2011, p.62) Lev, 2012; Abeyesekara, 2013, p. 233; PwC, 2013, p. 12) leveraging the different dimensions of organizational capital on an *input-output-outcome-impact-value of impact continuum* built on the PwC (2013, p. 12) model for measuring and managing total impact as a new language for business decisions and value the future (Mouritsen et al., 2001b)

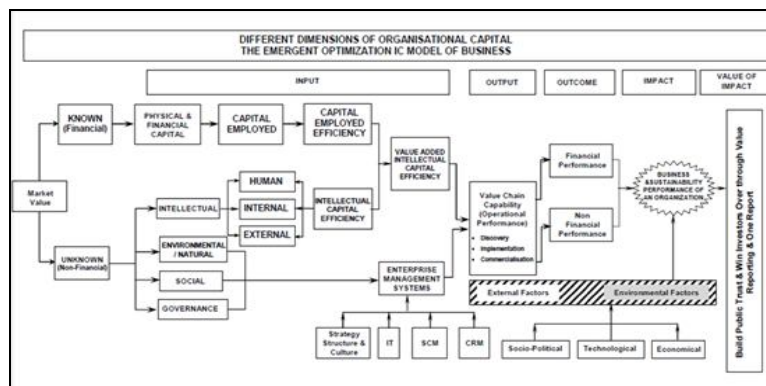


Figure 4: The Modified and emergent IC model of Business (Anthony, Thiagarajan and Utpal, Baul)

Abeysekera (2006) observes that the development of a theoretical framework underlying intellectual capital disclosure is in its infancy, with few studies providing a strong theoretical basis for interpreting their findings. However, the literature offers a few theoretical perspectives that may help explain the variation of intellectual capital disclosure. What is called for a Business Navigator with inputs from contemporary IC thought leadership collated from extant IC literature. Sveiby's (1997a, p.195) intangible assets monitor (a global, comprehensive, flexible framework that can accommodate any future developments in the IC domain) categories IC as internal capital, external capital and human capital (competence) and clustering measurements of the three intangible assets indicating growth and renewal, efficiency and stability. This could be used as the business navigator (Sveiby, 1997a, p.186). Sveiby's (1997a, p.197) idea of integrating the intangible asset monitor (IAM) into the management information system not exceeding one page in length to cover all intangible assets covering renewal, efficiency and stability should be given serious thought by organizations.

Our model mapped above integrates the value added IC efficiency and management systems of the enterprise. These together facilitate the operational excellence by galvanizing the value chain capability (Lev, 2001, p.111) paving the way for organizational performance – both financial and non-financial. The impact of these processes achieves the ultimate goal of business, that is, to build public trust and win investors over, the *raison d'etre* of an enterprise. We are of view that it is important to develop a strategy for bundling all sources of value creation potential into a single “recipe for adding value” (Lev and Daum, 2004) which this paper proposes through a modified, emergent and forward-looking optimization IC model of business (Figure 2) since few companies provide a comprehensive portrayal of the business model (Lev, 2012, p. 310). Our scholastic endeavor is to juxtapose our model with that of the IC Value Creation (ICVC) framework of Boedker et al (2005, p.517) and IIRC (2013) and expand the bandwidth of our model in the light of extant IC literature. This according to Boedker et al (2005, p.522) is to “demystify” IC and make it easy for the client organizations to comprehend IC management, measurement and reporting (ICMMR) in an integrated manner and demonstrate to organizations the strategic significance of making “visible” their invisible sources of value creation (Boedker et al., 2005, p.510). This is inevitable because if you do not create economic value from your business, you will not be socially responsible for long (Lev, 2012, p.215).

## 9. IC in Organizational Transformation

Knowledge creation, articulation, processing and leveraging have become a central value-creation activity for modern enterprises (Wiig, 1997). Prior to the knowledge era, businesses lived in a world of tangibles. However, things are different in today's world of intangibles. (Green and Ryan, 2005, p. 43). IC is related to the generation of value as a resource in knowledge based firms and societies. This is clear since the initial concern with market-to-book ratios proposes that value in knowledge-based firms is developed less from physical assets and more from intangible or intellectual assets related to cleverness, imagination, knowledge, insight and wisdom. Different IC research streams have emerged advocating different perspectives for the substance of IC (IC1-ostensive versus IC2-performative) and its role within corporate reality (Mouritsen, 2006). How IC research can happen in a meaningful way? The three big questions are : (a) How does IC work in firms? (b) What is IC composed of? And (c) How is IC related to value? These concerns are developed differently via IC1 and IC2 and they are presented in Table I (Mouritsen, 2006, p.823).

Theme	IC1 (IC is related predictably to knowledge and value objects and objectives in a pre-set model)	IC2 (IC is part of a configuration of knowledge management and actively mobilised to condition effects)
<i>The IC proposition.</i> Questions about how IC works in an organisational or social context	IC, knowledge and strategy are linked through causal mapping and related to effects of IC on value creation	IC is mobilised idiosyncratically in attempts to make a knowledge-based organisation perform towards endogenously defined values
<i>IC concepts.</i> Questions about how IC elements are to be understood and analysed	IC consists of human, organisational and customer capital each of which has functional qualities and are thus value generating assets not visible in the firm's balance sheet. IC has descriptive qualities and measurement is essence	IC is a representation of knowledge resources whose transformative qualities emerge in application. IC has classification qualities and measurement is convention
<i>Value of IC.</i> Questions about how IC is related to value creation	Risk and return Predictive information Market-to-book	Strategic values User values Ability to accomplish something

Table 1: Themes in IC Research (Source: Mouritsen, 2006) for organizational transformation

For IC1, IC is the firm's business model. For IC2, IC is different from, and yet an input to the transformation of the firm's business model. (Mouritsen, 2006, p.836). IC2 may present opportunities for interesting questions because it takes very little for granted, and because it seeks evidence that the connections we claim, are actually in place. (Mouritsen, 2006, p.837). Intellectual capital is invariably related to the production of value in the literature but value is rarely discussed systematically (Mouritsen, 2006, p.833). Furthermore, three simple questions ask how theory connects with practice and establish IC research where the primary purpose of research is to ask questions about the dilemmas and ambiguities in a pool of existing research. They are (a) What does IC do? (Rather than what is IC?) (b) Where is IC located? (Rather than who owns it?) and (c) How is IC related to value? (Rather than is IC valuable?) (Mouritsen, 2006, p.837). IC2 can help to develop a more nuanced research agenda that takes into consideration the detailed and multiple ways in which IC is involved in organisational and societal practices. IC2 proposes a platform for developing process-based insights into the working of IC. (Mouritsen, 2006, p.820). IC1-ostensive with IC2-performative research stream should be viewed in terms of integration. Both approaches, can contribute to the understanding of the IC (Vlismas and Venieris, 2011). Interestingly, many IC models are linked directly with value creation (Andriessen, 2004, Petty and Guthrie, 2000 and Roos et al., 2005)..

## 10. Merging the Classic and the Contemporary in IC

A large part of the research in the field of IC refers to the Resource Based View (RBV) of the firm (e.g. Fernandez et al., 2000; Herremans and Isaac, 2004; Johnson, 1999; Reed et al., 2006; Marr et al., 2004; Riahi-Belkaoui, 2003; Sveiby, 2001). RBV develops with the contribution by Wernerfelt (1984) and Barney (1986), amongst others. The Barney (1986) proposal is also known as the Strategic Factors Markets Model (SFM). According to SFM, the value the firm will generate in the future is already embedded in acquired resources. SFM speculates that all IC resources already exist and incorporate their future (potential) value. Resources exist outside the firm on strategic factors markets and also in the final form, in the sense that they already embed the potential value the firm can extract (Marzo, 2014, 45). The VRIN approach suggested by Barney (1991) instructs managers to acquire and control valuable, rare, inimitable and non substitutable resources but without explaining how to do it (Marzo, 2014, 47). What seems to be shared by all scholars is that intangibles are obviously non-tangible (and non-financial) assets (and liabilities (Caddy, 2000; Stam, 2009)), based on knowledge or information, and span three levels: human, intra-organizational and inter-organizational (Marzo, 2014, 43). This classification can be traced back to Sveiby's (1997a) Intellectual Capital Framework that consisted of employee competence, internal structure and external structure. This framework has been further developed by Guthrie et al. (1999) and by Abeysekera (2008), who refers to the three components as human capital, internal capital and external capital.

## 11. Stages of Intellectual Capital Research (ICR)

The key step in value creation has ascended an intellectual staircase as the business society developed (Pike et al, 2002, p. 659). TATA Consultancy Services (TCS), India's largest software services firm and the second-most valuable company in the world in the technology and services industry is setting up the world's largest corporate learning centre in Thiruvananthapuram, Kerala, India, built over 6.1 million square feet located on 97 acres (THE FINANCIAL EXPRESS ON SUNDAY, p. 1 and p.11, January 4, 2014). The IC knowledge explosion could be gauged from the fact that the academic publication model is coming under increased scrutiny and change, especially through the advent of open access publishing which is beginning to challenge the entrenched practice of locking up academic articles behind the pay walls of journals by encouraging "Free and open access to publicly-funded research to users in business, charitable and public sectors" Thus, researchers need to be aware of the strong possibility that their research will be available to a much wider audience than it is today (Dumay, 2014, pp.20-21). To keep in tune with the times, ICR has evolved in three distinct stages according to Guthrie et al. (2012).



- **The first stage of ICR:** It has its origins in the late 1980s and into the 1990s. According to Petty and Guthrie (2000, p. 155), it helped to develop a “framework of intellectual capital” raising awareness of why intellectual capital is important in “creating and managing sustainable competitive advantage” as the foundation for IC development. The aim of stage one was to render the invisible visible by creating a discourse that all could engage in. It is Mission accomplished (Petty and Guthrie 2000, p. 156). The focus during this phase was that “intellectual capital is something significant and should be measured and reported”. But it had little empirical research provided in support (Petty and Guthrie, 2000, p. 162). The progress during this stage was firmly grounded in the work of thought leaders like Sveiby (1997a, 1997b, 2010), Edvinsson (1997) and Stewart (1997a, 1997b). The balanced scorecard of Kaplan and Norton (1992) was a case in point. The “two grand theories” according to Dumay (2012, p.4) representing IC as the difference between market-to-book values (Stewart, 1997a) and as a means to greater profitability (Mouritsenet al., 2001) - created awareness of IC concepts/ broad principles about IC and guided management action. But IC concepts embraced as “grand theories” have been under-used as they were misleading not being able to be empirically proved. Therefore, managers were called upon to attempt to better understand the possible causal relationships between their people, processes and stakeholders (human, structural and relational capital) rather than adopting someone else’s mousetrap (Dumay (2012, p. 4). For instance, the concept of “market-to-book ratios” (Stewart, 1997a, 1997b) as an IC grand theory is flawed because of problems with fluctuating market values, historical cost accounting and the inability to measure intangibles in dollar terms (Dumay, 2012, p. 8).
- **The second stage of ICR:** It investigated the impact of IC on financial performance and value creation continuing to focus on developing how intellectual capital is measured and reported and more importantly how the IC taxonomy is defined (Edvinsson and Martin, 2007). This concern with measuring and reporting has also resulted in calls for the regulated disclosure of IC especially for listed companies (Burgman and Roos, 2007; Burgman et al., 2007) including the recent push for Integrated Reporting which is inclusive of a firm’s IC along with financial, environmental and social reporting (Adams and Simnett, 2011). Proponents of this stage argue that IC is the value driver leading to greater profitability (Bismuth and Tojo, 2008) and that organizational knowledge is at the crux of competitive advantage (Bontiset al., 1999). However, empirical and case evidence is inconclusive and far from achieving a solid scientific consensus as studies espousing success “are often based on the long term survivors in industry and do not consider those that have gambled and lost. Analyzing winners enlightens us to winning strategies while analyzing losers enlightens us to losing strategies. Unfortunately they often have been the same strategies, just executed differently (Dumay, 2012, p. 12). Second stage IC research also gave life to a dynamic theory of IC, such as the role of IC within value chains and value networks. As a result the dynamics of IC in value creation were also visualized using “value creation maps” (Marr et al., 2004, p. 319) and strategy maps. As a result, the dynamic theory of IC introduces that the roles and effects of different elements of IC are very complex and therefore difficult to predict and forecast (Roos et al., 2005). If researchers and practitioners continue with second stage ICR ideologies and incrementally improve or invent new frameworks and models, there is no doubt they will make some progress towards understanding and implementing IC practices. However, these changes will most likely be marginal at best. Researchers, practitioners and policy makers settle upon the basic frameworks of measuring, collating and presenting IC information to users and cannot see why managers and other stakeholders are not interested in what is reported. The continued desire to reinvent and create these IC frameworks is evidence of this problem (Dumay and Garanina, 2013, p.20). The first and the second stages of ICR drove home the point that intangible assets are driving value creation in today’s global economy. IC research to remain relevant, researchers need to concentrate on research based on managing IC at the operating level of case/field study/interviews rather than taking a top-down approach to research (Dumay, 2014, p.16).
- **The third stage of ICR:** While the second stage ICR is predominately devoted to evaluating IC’s influence on financial outcomes, third stage ICR focuses on the deeper managerial implications of managing IC in all types of organizations and can be classified as bottom-up research as opposed to top-down. Thus, the third stage considers value is not just monetary but incorporates worth and importance of the products and services to customers and other stakeholders (Dumay, 2009a, p. 195). In this case all evaluation methods of IC become just tools for managers of companies who are more concerned with real implications of IC management for value creation than just pure IC measurement. The third stage has started to gain considerable impetus and it will be interesting to see how it develops over the coming years (Guthrie, et al., 2012). The third stage ICR has the potential to be transformational because, rather than developing IC practices, it gets involved with the praxis of IC (actually implementing IC) inside organizations. When by examining “How IC works “rather than building a “new and improved” top-down ostensive IC causal framework or model, provides a better view of the actual impact of IC in action. When the performative bottom-up approach is used to gathering insights into the workings of IC then models describing the interaction of IC elements can be developed rather than trying to allocate abstract IC measures in an attempt to fit into a predefined framework or model (Dumay and Garanina, 2013, p.20). At present, according to Dumay (2014, p.11) there seems to be an increasing interest in performative research (e.g. Dumay, 2009a; Kim and Kumar, 2009; Secundo et al., 2010). IC as a transformational and powerful management tool is that researchers, practitioners and policy makers are beginning to transcend the dominance of accounting in the process of understanding and researching IC. They are encouraged to pursue research in which the evaluator trap of ostensive research is transcended by research that investigates the praxis of IC in specific contexts. As Dumay and Rooney (2011) conclude “it is possible to effectively implement IC practices without necessarily needing concrete IC measures”. It is practice that helps researchers and practitioners to internalize what works

(and what does not) inside a specific organization rather than research that can be generalized to all organizations. The former is real life and the latter appears to be fantasy. (Dumay and Garanina, 2013, p.21).

Many IC researchers are stuck in an evaluator trap (Olson et al., 2001), continuing to develop second stage, top-down ostensive ICR rather than critical, bottom up, third stage ICR (Dumay and Garanina, 2013). The continual promotion of second stage ostensive ICR towards creating economic value, combined with the lack of comprehensive empirical evidence to support the impact of IC on financial performance and value creation, is generating a vicious cycle of research attempting to find the ultimate all encompassing framework for developing IC. Current ICR practice is still predominately stuck in the second stage of ICR even though third stage performative ICR is on the increase stills the latter proposing new frameworks (Dumay and Garanina, 2013, p.16). The trap IC researchers and practitioners fall into is the continued use and incremental evolution of models based on grand theories that prevent us from experimenting with third stage ICR (Olson et al., 2001).

## 12. Five IC-related issues for future IC Research

Current, emerging and prospective IC scholars need to take more risks with the topics they address and not accept the status quo that particular academic disciplines or theories prescribe (Dumay, 2014, p.21). As Guthrie and Parker (2014) argue, taking risks is necessary because “some of the greatest discoveries in other fields have been achieved by researchers who took risks in the subjects they addressed”. Thus, researchers who simply replicate studies in different contexts are highly unlikely to add anything of significance to our knowledge of IC and how it works (see Gendron, 2008). A theory of the firm can boost consistency in research and practice. There are five issues that highlight some troubling, unresolved questions (in dotted-lined boxes) for each of them (Marzo, G., 2014) as sketched in Figure 5. The five issues are:

- The definition and origins of IC (i.e. what is an intangible resource and where it comes from)
- The set of property rights on IC (i.e. who is the owner or the controller of those resources and what is the extant of the control rights)
- The role of those resources in the firm’s competitive advantage and value generation process;
- the way in which they can be valued, including issues about the internal and external reporting of IC; and
- the best way to effectively manage and control IC.

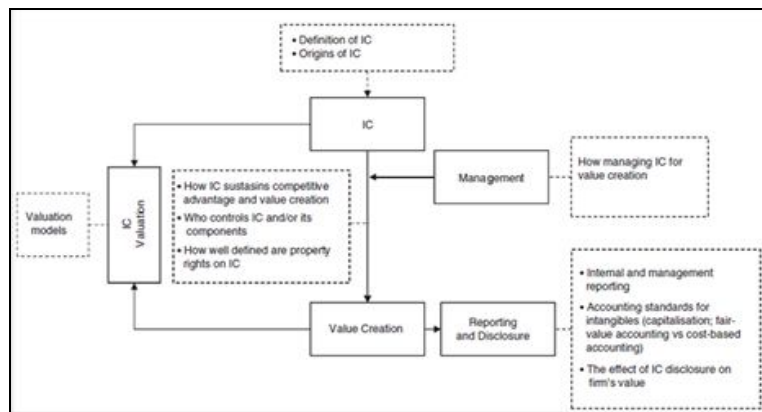


Figure 5: IC-related issues (Marzo, G., 2014. p. 43)

Also, there are other broader views on the path of IC relevance and development such as developing IC from the IC of nation’s perspective rather than the IC of particular firms (Lin and Edvinsson, 2009). “Transformation is about change” (Dumay and Garanina, 2013, p. 20). IC is not solely an accounting discipline, despite the argument that we need to examine IC from an accounting perspective because “the traditional model of ‘accounting’ which so beautifully described the operations of companies for a half millennium, is now failing to keep up with the revolution taking place in business” (Edvinsson and Malone, 1997, p. 1). We need to walk the talk by working inside organizations with practitioners and managers in real time, implementing IC.

## 13. Primacy of IC praxis over practice

Dumay (2012) says that we are still not at a point where it can be declared that managing IC leads to greater profitability because of the “inability to make causal links between IC and value creation”. Taking the Jhunjhunwala (2009) paper as an example, one can build on the grand theory of value creation (Bismuth and Tojo, 2008, p. 242) by positing that value creation for shareholders in the hotel industry is based on the following causal links (Jhunjhunwala, 2009, p. 214):

*The more the employee satisfaction and motivation, the better will be their behavior and attitude towards customers and towards work leading to higher customer satisfaction, which in turn will increase reputation of the hotel and thereby increase occupancy rate ultimately creating shareholder value.*

The evaluator trap is most evident when Jhunjhunwala (2009, p. 217) declares afterwards that the process of measuring IC comes after the causal relationship has been identified rather than measure IC first and then determine the causal relationships as follows: “Once critical intangibles have been identified and causal relationship established, the firm needs to define specific set of indicator for each

intangible .IC as a transformational and powerful management tool is that researchers, practitioners and policy makers are beginning to transcend the dominance of accounting in the process of understanding and researching IC. They are encouraged to pursue research in which the evaluator trap of ostensive research is transcended by research that investigates the praxis of IC in specific contexts. As Dumay and Rooney (2011) conclude “it is possible to effectively implement IC practices without necessarily needing concrete IC measures”.

There is no doubt the proliferation of different frameworks, which some authors claim to number over 100 (Pike and Roos, 2007), causes confusion about what is the right framework to apply in any given situation because “one size doesn’t fit all” (Ghemawat, 2002, p. 71). Thus as the economy continuously develops it would be expected that new models continually evolve from an ostensive perspective. Having extensively reviewed extant IC research literature from scholarly, peer-reviewed international journals we attempt building on Figure 2 an optimization model (Figure 6) building on the popular works of thought leaders (Sveiby, 1997 a, b; Lev, 2012 and DiPiazza and Eccles, 2002). This could be dovetailed with the latest path breaking work of the



Figure 6: An Optimization Model for IC-centered integrated reporting (Anthony, Thiagarajan and Utpal, Baul)

International Integrated Reporting Council (IIRC). The IIRC is a global coalition of regulators, investors, companies, standard setters, the accounting profession and non-governmental organizations that have come together “to create a globally accepted international integrated reporting framework that elicits from organizations material information about their strategy, governance, performance and prospects in a clear, concise and comparable format” (International Integrated Reporting Council [IIRC], 2013a, p. 1). On February 13, 2013, a Memorandum of Understanding was signed by the International Accounting Standards Board (IASB) Chairman and IIRC Chief Executive Officer that will enable the two organizations in improving cooperation on the IIRC’s work to develop an integrated corporate reporting framework (International Financial Reporting Standards Foundation, 2013). Integrated reporting has occupied the domain of IC reporting, i.e. explaining the value creation story, but it is broader and comprehensive than IC reporting. Value creation extends beyond IC to natural, financial, manufactured and social capital, all of which have been captured in integrated reporting. In addition, the distinguishing feature of an integrated report is the connectivity it demonstrates among financial and non-financial information – connectivity that provides a holistic view of firm value creation. The challenge would then be how to integrate IC with everything else! Abhayawansa, S. (2014, p. 120).

The predominance of second stage ICR is based upon the mistaken belief that managing and disclosing IC creates value and that this value will result in greater profits and increased value of company securities (see Bismuth and Tojo, 2008, p. 242), or in the case of some public sector and not-for-profit organizations, social and utility value as well. However, as Dumay (2012) argues, accepting grand theories such as these is dangerous because they are empirically unproven. Thus, relying on the use of ostensive models for measuring, managing and reporting IC may lead to an “evaluator trap” whereby the residing misplaced belief of the second wave of ICR that measuring, managing and reporting IC is causally linked to creating value causing IC researchers to continually create or improve on the plethora of frameworks and models already in use.

Paul Druckman, CEO of the IIRC, has said that “creating a new corporate reporting language that better serves business and investors, and contributes to a more sustainable global economy will be the ultimate prize,” he said. Our model in Figure 5 is a humble attempt towards that end. However, Analysts remain skeptical that integrated reporting will go much beyond glossy brochures if it is not backed by regulators according to the Australian Financial Review

([http://www.afr.com/f/free/markets/capital/cfo/iasb\\_integrated\\_reporting\\_tie\\_the\\_OTU1MW34PNG22G5jVfC8jL](http://www.afr.com/f/free/markets/capital/cfo/iasb_integrated_reporting_tie_the_OTU1MW34PNG22G5jVfC8jL) accessed on August 11th 2014)

#### 14. Sustainable Stakeholder Capitalism (SSC)

While the global stakeholder devastation produced by the current system of unaccountable financial risk shifting cries out for major theoretical and practical reforms, the absence of a morally compelling alternative can immobilize change agents and perpetuate drifting along in political stalemate. To overcome political paralysis, it is necessary to exercise moral imagination about a preferred economic future (Werhane 1999). The model of SSC in Fig... is the result of moral imagination (Petrick, 2011, p. 96) It will be used both to theoretically diagnose the moral and extra-moral deficiencies of the current system of unaccountable financial risk shifting and to design theoretical prognosis for a preferred economic future of accountable and responsible financial risk management. The model

essentially depicts four types of parallel ethics emphases, human nature drives, types of capitalism, and financial credit risk strategies (Petrick, 2004). The thesis behind the model is that the current overemphasis on the right half of Figure 6 and the relative neglect of the left half has resulted in legal but ethically objectionable distorted judgments, policies, and practices. The theoretical remedy is to inclusively and moderately rebalance the multi-level approaches by re-emphasizing the left half of Figure 7.

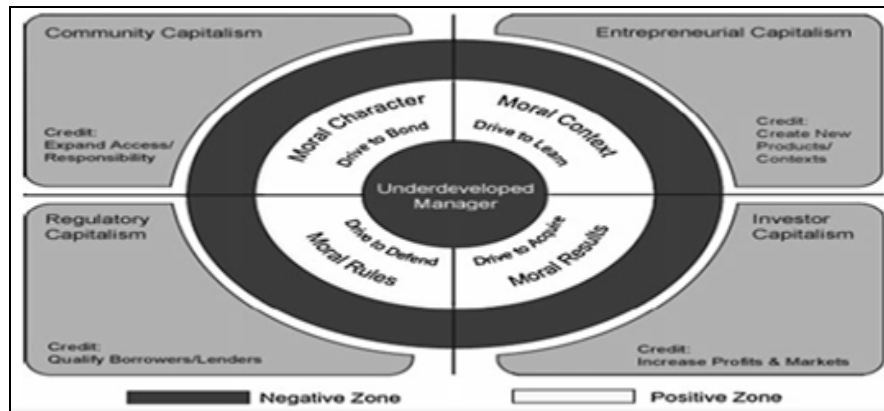


Figure 7. Model of Sustainable Stakeholder Capitalism (Petrick, 2011, p. 96)

The model of SSC implies that sustainable global capitalism requires that business, government and civil society leaders inclusively and moderately balance the economic, psycho-social moral, and credit risk demands of market and non-market stakeholders in all the four quadrants and be

held accountable for lapses in judgment for not doing so (Petrick and Quinn 2001). The implementation of the SSC model would have a major innovative impact on transforming management education from preparation for expanding disaster capitalism to preparation for contributing to sustainable global capitalism (Ikerd 2005). The SSC model is one imaginative alternative business model designed to promote a sustainable form of global capitalism without relying on the endless, clever risk shifting ploys of the current US financial system. Business integrity capacity is the key intangible strategic asset and can be defined as the aggregate individual and collective capability for repeated process alignment of economic, psycho-social, and moral awareness, deliberation, character and conduct that demonstrates balanced, inclusive, and non-extreme judgment, enhances ongoing economic, psycho-social, and moral development, and promotes supportive systems for economic, psycho-social, and moral sustainability (Petrick and Quinn 2000, 2001).

### 15. Credibility is the name of the game to secure the future

Though the effort to address the SSC Model calls for a comprehensive and holistic approach, the credibility of the several stakeholders, plays a huge role. For example, the primary purpose of all accounting standards is to meet the needs of capital market (FASB, 1978; IASC, 1994). Studies have demonstrated that capital market actors lack interest or even ignore information about intangibles (Eccles and Mavrinac, 1995; Catusus and Grojer, 2001). The inevitable: capital market actors are liable to risk a reduction of their personality (Johanson, 2003 p. 35). Yet, there is no consensus on the appropriate methodology for calculating the annual stock returns (Baraber and Lyon, 1997; Kothari and Warner 1997; Brav and Gompers, 1997; Lyon et al., 1999). In this context, we believe that Behavioral finance that analyzes the impact of systematic psychological biases on the decision making process of investors should be given thrust. Because the proponents of behavioral finance believe that investors are influenced by their emotions in addition to the mean, variance and covariance of asset returns in making investment choices (Hodnett and Hsieh, 2012). Analysts compete vigorously with one another regarding salary. From this competitive struggle, an abstract greed (Solomon, 1992) is developed. To afford their living they do not really need all the money that they earn but, as has been proposed by many authors (Furnham and Lewis, 1986), money carries meaning. Money involves many symbolist functions, among others security, appreciation and power. All these three symbolist functions appear to be relevant in the case of capital market actors. If you succeed in achieving appreciation and power, you increase your security against be in threatened. Financial analysts are goal-oriented, but there is no room for inner values; nor is there room for inner reflection. Aggressive behavior and competition are attributes that are remunerated (Johanson, 2003, p. 35)

Ironically enough, investors to be on a stronger wicket, Management Credibility and Disclosure credibility are the two most important factors that would impact our model given in Figure 5. Management credibility is a more enduring trait of a firm's managers, referring to investors' perceptions of managers' competence and trustworthiness (Hovland et al, 1953, p. 21). Investors are sensitive to variations in the credibility of a firm's individual disclosures (Williams, 1996; Hutton et al, 2003). Disclosure credibility is investors' perceptions of the believability of a particular disclosure (Mercer, 2004, p. 186). There are four factors that influence disclosure credibility when investors rely on management disclosures, viz.,

- *Situational incentives*: When management has greater incentives to mislead, disclosures are less credible
- *Management credibility*: Investors are more likely to rely on the disclosures of more reputable managers
- *External and internal assurance*: Assurance from external sources such as auditors or analysts and internal sources such as the firm's board of directors or audit committee can increase a disclosure's credibility

- *Disclosure Characteristics*: Various features of the disclosure itself – including its precision, venue, time horizon, amount of support information, and inherent plausibility – affect its credibility

Some of these factors have interactive effects on disclosure credibility, but these interactions are less well understood. The urgent and important practices that call for attentions are (a) the extent to which analysts' and journalists' beliefs about a disclosure's credibility influence how the investing community perceives the disclosure (b) whether these parties can increase as well as decrease, a disclosure's credibility (c) whether the influence of these parties' views has eroded after the recent spate of financial accounting scandals and (d) how and when internal sources of assurance – such as a firm's board of directors, audit committee and internal auditors - affect disclosure credibility (Mercer, 2004, p. 194).

## 16. Conclusion

The path we have chosen may not be the only path used to progress beyond IC's crossroads of relevance and also legitimacy. We must substantially demonstrate the relevance of intellectual capital as a working discipline that is useful to organizations to use to gauge and generate significant value and to effectively navigate to achieve strategic goals. (Chatzkel, 2004, p. 337)

IC researchers can be transformational in two ways. First, IC researchers need to work more closely with practitioners and managers in real time, implementing IC and then share these experiences. Secondly, the purpose of scholarly research is not just to report on the facts, but to develop insights into how the field might be advanced through improving understanding of IC as a concept and of the methods employed (Dumay, 2014, p. 20). As an intangible, IC is "is a challenging concept to define, let alone measure" and requires us to rethink the way we approach IC beyond the boundaries of the "functional silos" of accounting or management (Tingey-Holyoak and Burritt, 2012, pp. 93-4). We must blur the artificial boundaries between accounting and management and include other disciplines such as psychology, information technology, sociology, the natural and built and environment, engineering, manufacturing, to name just a few (Dumay, 2014, p.21). A deeper understanding (Table 2) is advocated of how organization's mobilize their IC to achieve their goals (Chaharbaghi and Cripps, 2006; Mouritsen, 2004).

	IC proposition	IC concepts	Value of IC
Ostensive IC1	IC, knowledge and strategy are linked through causal mapping and related to effects of IC on value creation	Consists of human, structural and relational capital; each has functional qualities and are thus value generating assets not visible in the firm's balance sheet; IC has descriptive qualities and measurement is essence	Risk and return Predictive information Market-to-book
Performative IC2	IC is mobilised idiosyncratically in attempts to make a knowledge-based organisation perform towards endogenously defined values	IC is a representation of knowledge resources whose transformative qualities emerge in application. IC has classification qualities and measurement is convention	Strategic values User values Ability to accomplish something

Source: Mouritsen (2006, p. 824)

Table 2: *Ostensive vs performative IC understanding (Wasulik, 2013, p. 105)*

Rather than letting these disciplines approach us, we need to examine how, as IC researchers and practitioners, we involve ourselves with these and other disciplines to comprehend the concept of IC to apply and extend the boundaries of IC (see Serenko and Bontis, 2013, p. 793). Extending the boundaries of IC scholarship into trans disciplinary scholarship should be beneficial as it has the potential to reignite the "passionate scholarship" (Courpasson, 2013).

Business has entered a new era of hyper-competition in which competition is violent and intense (D'Aveni, 1994). In order to sustain competitive advantage, business firms must continually reconfigure internal resources and capabilities to assume corporate responsibility for adapting turbulent environment (Cui and Jiao, 2011). We are of the view that strategic alliance and an organization's human capital would make a differentiation in leveraging IC holistically as envisaged in our model in Figure 5. A strategic alliance is a purposive relationship between two or more independent stakeholders that involves the exchange, sharing, or co-development of resources or capabilities to achieve mutually relevant benefits (Gulati, 1995). Many scholars have conducted research on dynamic capabilities and believed that dynamic capabilities are useful (Winter, 2003; Teece, 2007; Jiao et al., 2010). Dynamic capabilities, entailing the development of new operational capabilities, are emerging as an important source of sustainable competitive advantage, which suggests that business firms can employ dynamic capabilities to form strategic alliance with stakeholders to pursue sustainable competitive advantage (Zahra et al., 2006). Although they believe that dynamic capabilities are positively related to long-term performance, to date researchers have not provided a compelling explanation for the effect of strategic alliance to manage stakeholder on the relationship between dynamic capabilities and sustainable competitive advantage in the domain of corporate responsibility. However, empirical results reveal that strategic alliance with stakeholders plays mediation role between dynamic capabilities and sustainable competitive advantage. Therefore, sustainable competitive advantage originates from their capabilities to create, accumulate, and utilize internal resources to form strategic alliance with different partners, which give implications for the field of corporate responsibility.

Besides the above, today's issue is that the present accounting and reporting standards grossly understate the value of the organization's assets. Hence, provide a skewed financial picture. This is most dangerous for stakeholders in high technology, service,

and other organizations where people are key to the organization's success. Designing effective methods of communicating information about value to stakeholders is important at the company level, but accounting and financial reporting standards must be revised in order to provide more useful information to stakeholders globally (Fischer and Marsh, 2014). Wasulik, (2013) builds a conceptual bridge between the intellectual capital (IC) and corporate sustainability (CS) literature to investigate how firms mobilize their IC in order to implement sustainable development into their business practices. The roles identified in Figure 8 are based on the empirical data from the CS leaders who are currently performing somewhere between Dunphy et al.'s (2007) efficiency and strategic proactively phases of CS for most aspects of their business activities (Wasulik, 2013, p. 115).



Figure 8: Changing approach to the management of human competence (Wasulik, 2013, p. 117)

Over the last three decades, research has uncovered an increasing gap between an organization's book value and market value (Lev, 2001) that some have attributed to the rise of the "knowledge economy" (Lev et al., 2005). This gap between market value and book value – known as hidden value – has been attributed to the intellectual capital, or intangible assets, of an organization (Lev and Zarowin, 1999; Whiting and Miller, 2008). We are of the view that for the optimist and the uninitiated, market capitalization explained as gap between book value and market value differentiated by IC, it would be biz-optimal optically. But, for the deep-thinking, futuristic and the altruistic humanist-economist-statesman, it is an indignant mirage. Ditto the competent veteran scholars, not to speak of the regulators, analysts, technologists, accountants and accounting firms, individual investors, institutional investors, all other stakeholders, board of directors, corporate executives, everyone (Eccles et al., 2001). The third millennium witnesses' human capital replacing inanimate assets as the most important resource of corporate capabilities and value (Rajan and Zingales, 2003, p. 90) and management faces pressure from newly empowered shareholders to perform while at the same time coming to terms with the diminished authority it has within firms (Rajan and Zingales, 2003, p. 92). Also when investors feel safe, a country can benefit greatly because it can borrow to fund national enterprise and not be limited by what it can raise in the short run through taxes (Rajan and Zingales, 2003, p. 156). As historian Ehrenberg (1928) writing in the early part of the twentieth century, puts it, "England would not have been the Great Britain of today, it would not have conquered half the world, if it had not incurred a national debt of 900,000,000 pounds between 1693 and 1815". A holistic approach calls for a paradigm shift at a time when as Bryce (1913), President of the International Congress of Historical Studies said "whatever happens in any part of the globe has now significance for every other part. World History is tending to become One History" (Bryce, 1913). While contemporary organizations are on a never-ceasing journey to navigate from being good to great (Collins, 2001) aspiring to build institutions built to last (Collins and Porras, 2002) knowing in their of heart of hearts that only the paranoid survive (Grove, 1996) to compete for the future (Hamel and Prahalad, 1994), let us sign off anchored in the mind of the strategist (Ohmae, 1982) with the fond hope to ever innovate and build IC-driven learning organizations through the fifth discipline (Senge, 1990, p. 6). *We are of the view that it would be germaneto quote Louis Jacques Mande Daguerre :*

*I have seized the light;*

*I have arrested its flight*

*Deep-rooted with a missionary zeal in IC might !*

*The triumvirate to make things happen are:*

*GOOD EARNINGS. GROWTH POTENTIAL. ETHICAL LEADERSHIP. WITH IC.*

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