

# The Intellectual Capital Engine for Organizational Governance and Sustainability: A Theoretical Inquiry and Path Analysis

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## Abstract

**Purpose :** The purpose of this paper is to review the international literature in the historical and current context of intellectual capital (IC) to leverage it from a third-dimension. This is approached through a big-picture erudition of the IC domain with an “application-rather-than-theorizing” psyche since there already amply exists a “concepts-typologies-frameworks galore” in the IC domain richly and sumptuously marinated over 21 years. This paper is to aid all stakeholders to leverage IC with the twin-purpose of business sustainability the *raison d’être* of any economic calling. “Measure and Report IC to manage and lead” with a proactive mindset-toolset-skillsset paradigm is the quintessence of this paper. The paper maps a three-pronged approach to standardize and universalize a framework to achieve Business efficiency and effectiveness.

**Design / methodology / approach:** The paper through a literature review examines the seminal papers and books focused on currency, accuracy and objectivity citing authoritative and current resources. It maps the essence of evolving IC research to enable all IC stakeholders to take notice of IC from the perspectives of its total components, value creating processes for total improvement management, business performance reporting (both financial and non-financial) and business sustainability from the standpoint of triple bottom line (people, planet and profit) in the context of the ever-lurking strategic inflection points or stalls that never-ceasingly stare business and industry in their face.

**Findings:** The paper is a theoretical analysis of IC that documents the maturity evolution of the IC domain by piecing together the theory building-blocks of IC to be pragmatically pitch forked on to the “best-in-class business practice arena”. This would be the cornerstone to bridge the theory-practice divide to provide an empowered launch pad through ‘One Intellectual Capital’ for all stakeholders for value creation to achieve business sustainability from the Practitioner-Consultant-Researcher perspective.

**Research implications / Limitations:** The paper surveys mostly western literature with occasional notations from Indian perspective pointing out the vast scope to leverage current IC theory and practice for business continuity and sustainability. The insights would aid scholars and practitioners alike because market capitalization which is the core of the economic world hinges on talent, intelligence and knowledge that are a

worldwide economic force for managers, business leaders and investors in the global village. Nevertheless, the paper must be empirically examined and proved since empirical findings have to make sense in addition to being statistically significant.

**Practical implications:** This study examines the abstract conceptualization and concrete experience of IC thought leaders, reflectively observe the context and embark upon active experimentation to strengthen (a) great focus and execution (b) great leadership and (c) great people. In other words, to empower business and management not to mention of accountants, auditors, scholars, individual and institutional investors, financial analysts shareholders, regulators and national governments.

**Originality/Value:** This paper contributes to both literature and practice for the first time by mapping a state-of-the-art, Holistic Intellectual Capital-anchored Business (HICAB<sup>TM</sup>) Model using the theory on IC research. This is to earnestly enable 21<sup>st</sup> century organizations to passionately improvise and deploy them to achieve organizational greatness through sustained performance, intensely loyal customers, a winning culture and distinctive contribution all mercifully and thankfully catalyzed and accomplished by IC.

**Keywords:** Intellectual Capital, IC Management Measurement, and Reporting (ICMMR)

**Abbreviations:** HICAB<sup>TM</sup> (Holistic Intellectual Capital – Anchored Business) Model; (One Intellectual Capital - Visualization, Management, Measurement and Reporting); BEE (Business Efficiency and Effectiveness)

**Paper type :** Literature Review

## 1. INTRODUCTION

“What we value defines our times”. – Willy Sussland

Do you want to be a ‘Good to Great’ company that is ‘Built to Last’ to ‘Compete for the Future’? If your answer is ‘an emphatic, wise affirmative’, the silver bullet to wage the war (business is a war, metaphorically put) is Intellectual Capital (IC). IC the core asset for the third millennium enterprise (Brookings, 1996) and the capital in waiting (Edvinsson, 2013) rose to become the major value driver of businesses, high as well as low tech, manufacturing and service alike, over the past two to three decades. These ‘soft’ assets are what give today’s companies their hard competitive edge. (Lev, 2004). Physical assets are now by and large commodities available to all (Lev,

2012 and 2001). The result: the evolving world's economy has led to a shift away from traditional forms of tangible economic drivers such as plant, machinery and real estate to an economy driven by the use of intangible resources such as knowledge (Dumay, 2009). As the business society is developed, the key step in value creation has ascended an intellectual staircase (Pike et al, 2002, p.659) more so as wealth and growth in today's economy are driven primarily by intangible resources (Lev & Zambon, 2003, p. 597). Intellectual capital is a major factor for the success and performance of organizations and its importance is increasingly appreciated in the world of business (Keenan and Aggestam, 2001; Saint-Onge, 1996; Bontis, 1996; Bradley, 1997). This article is based on critical thinking anchored in state-of-the-art empirical evidence on the basis of actionable prescriptions.

In a "stakeholder corporation" (Wheeler and Sillanpaa, 1997), in view of the above global development, "managing for shareholder value" is widely accepted as the capital market's *raison d'être* for management for public listed firms. Hence, IC-intensive firms are routinely put under the microscope in a world of instant communications, whistle blowers, inquisitive media and Googling by citizens, investors, financial analysts, business-minded public, business students, non-governmental organizations (NGOs) and communities. Powerful institutional investors today manage most wealth and they are developing x-ray vision (Eccles and Kruz, 2010).

What accentuated and accelerated the criticality of IC in the 21<sup>st</sup> century was this. Capital markets (Lev, 2012) during the first decade of the 21<sup>st</sup> century were hostile territory for investors. From the debacles of Enron and WorldCom early in the decade to the collapse of Bear Stearns, Lehman Brothers and Countrywide Financial at its end, and from the vanished investments in dot.coms and high techs in 2000 to the massive losses of funds sunk into stocks, subprime mortgages and commercial real estate, equity investors suffered mightily. Paradoxically enough, many corporate managers, meanwhile, enjoyed ever increasing, sometimes detached-from performance a compensation, some even abusing stock option grants and helping themselves in outrageous perks and golden parachutes (the latest being Daniel Vasella, the outgoing Chairman of the Pharma group Novartis receiving a golden handshake of \$77.94 million in February 2013 to refrain from making his knowledge and know-how available to competitors though mercifully enough, he intended to donate the whole amount, net of taxes, to charity), all enabled by complacent, often incompetent directors. This resulted in Investors' disillusionment, ire and loss of trust. Regaining investors' and the public's confidence is the most critical issue facing corporate executives in the early 21<sup>st</sup> century. Rebuilding confidence requires a concerted effort to repair relations with investors and the public.

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☆ *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)*

The solution lies in improving the quality and integrity of financial disclosure in Annual Reports. Because, the proposition "put your money where your expert mouth is" is passé, though it could economic uncertainty (Charan, 2008).

Here is a classic and contemporary example of a global, Indian behemoth that is focused on intangibles-intensive, sustainability-anchored, stakeholder-oriented, value-creating business: "This is a time for us to re-look at some of our strategies, recalibrate our business models, fine-tune our execution capabilities and invest in our future.....To remain relevant in an increasingly competitive world, we shall put innovation capability at the core of each of our companies' operating structures and will invest in R&D and grow talent.....With over half a million employees, the Tata Group today constitutes a global force not only for doing good business, but being in the business of doing good for society, and I am absolutely confident we will deliver on our core purpose of long-term stakeholder value creation", said the Tata Group chairman Cyrus P. Mistry in his year-end letter to its 540,000 employees world-wide. The Tata Group has 100 operating companies with operations in more than 100 countries across six continents, exporting its products and services to 150 countries (THE HINDU, January 1, 2014, p. 20 and THE FINANCIAL EXPRESS, January 1, 2014, p. 4).

## 2. A HISTORICAL PERSPECTIVE OF IC

The term Intellectual Capital was first introduced by Galbraith (1969) as a form of knowledge, intellect, and brainpower activity that uses knowledge to create value. Knowledge could be used to explain firm's performance and growth. Knowledge is recognized as a durable and more sustainable strategic resource to acquire and maintain competitive advantages (Barney, 1991, Grant, 1991). The biggest contribution of management in the twenty-first century, according to Drucker (1999), is to enhance the productivity of the knowledge worker, who is the primary factor of production in the knowledge economy (Crawford, 1991). Drucker (1994) has also stressed that the most important resource of a company's economic growth is its knowledge, collected from its employees, customers, and suppliers. In an economy where the only certainty is uncertainty, the sure source of lasting competitive advantage is knowledge (Nonaka and Takeuchi, 1995).

Competitive advantages of organizations in today's economy are determined by the capability to replicate knowledge resources anchored in people's expertise and experience (Teece, 1998). These resources are intangible and are called 'intellectual capital (Klein and Prusak, 1994; Edvinsson, 1997; Saint-Onge, 1998) The shift to a knowledge economy was foretold by thinkers such as Peter Drucker and Alvin Toffler. (Adams, 2008) More recently Thomas Friedman, in his book, 'The World is Flat' helped make this shift very real through his stories of how improved global education, high speed communications and technology are combining to create a highly competitive world-wide economy. Little wonder, roughly 55% of all capital invested by Fortune 500 companies is on technology (Phaneesh, 2013). That is reason enough why the Government of India

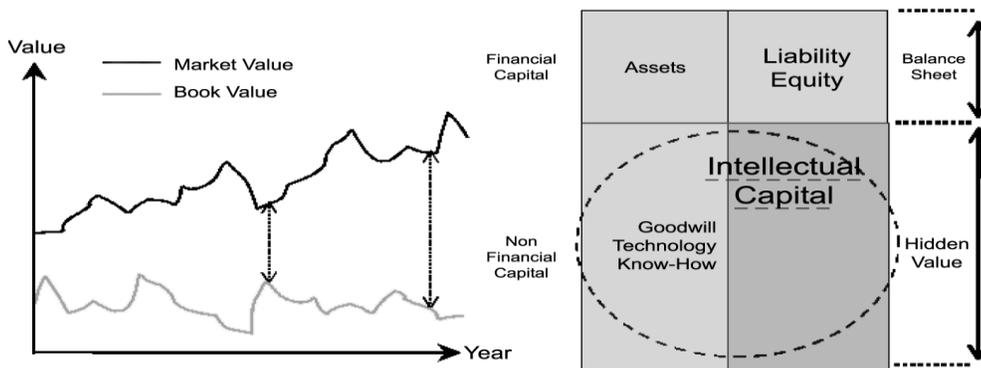
feels that “we must enhance our capabilities on major fronts, primarily technology, human skills and hardware knowledge. Innovation is a key management strategy for growth”, according to Pranab Mukherjee, the President of India (The Hindu, BUSINESS LINE, February 26, 2013)

A transition from the industrial era to the knowledge era has occurred (Powell and Snellman, 2004) that relies on IC, knowledge and innovation rather than physical capital and manual labour to create wealth (MERITUM, 2002; Hamilton et al., 2005). Bontis (2001) argues that leveraging knowledge assets is the key to a firm’s prosperity. Intangible assets are recognized as critical factors in generating sustainable competitive advantage necessary for the creation of superior business performance (Barney, 1991). When the early part of the 21<sup>st</sup> century is littered with strategic inflection points (Grove, 1996) and stall points (Olson and Bever, 2008), it takes substantial and sustained intellectual energy (Hamel and Prahalad, 1994) to develop high-quality, robust answers to questions such as:

- (a) what new core competencies will we need to build ?
- (b) what new product concepts should we pioneer ?
- (c) what new alliances will we need to form ?
- (d) what nascent development programs should we protect? And
- (e) what long-term regulatory initiatives should we pursue?

‘Competing for the future’ for good to great companies (Collins, 2001) built to last (Collins and Porras, 2002) is to virtually view

Figure 1: Gap between market and book value



Source: Market Intelligence Center, Taiwan (2003)

Having better employees than the competitors will make the difference between having superior products and average ones. Where is *partners value*? Loyal suppliers and distributors make a company and disloyal ones can break a company. Where is *knowledge and intellectual capital* value. Patents, copyrights, trademarks and licenses can be one of the company’s major assets. In view of this, companies would be wise if they identify and assess all their marketing assets like their brands, customer relationships, employee relationships, channel relationships, supplier relationships and intellectual capital. These are the

future as an asset in the light of knowledge assets historically progressing from tangibles to intangibles

### 3. Contemporary Issues in the Intellectual Capital Domain

#### 3.1. The key to market capitalization : Market-based assets not physical assets

The modern balance sheet, according to Kotler (2003) is a lie. It omits the company’s most important assets. Probably 80 per cent of company’s value lies in its intangible assets, but they are not reflected on the books. The value of company’s plant, equipment, inventory and working capital hardly reflects a true value of a company. For instance, where is Coca Cola’s *brand value* on the company’s balance sheet? Coca Cola’s brand value is estimated at \$70 billion (in 2003). Where is the value of its *consumer base*? It is the satisfied customers who repeatedly buy from the company who constitute a major asset. Where is *employee value*? Lev (2001) investigated the market-to-book value ratio for United States Standard & Poor’s 500 (US S&P 500) companies from 1977 to 2001 and found that over 80 percent of company market value was not included in the financial statements. Since the gap between financial value and market value increased dramatically (Figure 1), in addition to considering the figures shown on financial statements, a company must also consult the information from IC indicators, such as human capital, relationship capital and innovation capital.

value drivers that are positively associated with firm- and market-level financial outcomes (Ashton, 2005). This approach would do the business world a world of good as all value comes from outside the organization. Inside the organization there are only costs (Drucker, 1973)

Owning physical property, according to Kotler, could be a liability. All a company has to do is only to access to physical assets. To run a company as a lean company may call for *decapitalizing* – outsourcing activities and shrinking working capital. The Sara Lee Corporation, for example, is of the view

that it is better to own brands (Champion, Coach, Hanes, Playtex, Hillshire Farm and others) than factories.

### 3.2. IC and Capital markets are Siamese-twins

The market value of knowledge-intensive firms is often much higher than their book value (Lev, 1997), the gap sometimes referred to as firms' "hidden value" (Edvinsson, 1997). Firms that report a great difference between the net book value and market value have a high level of IC. (Branswijck and Everaert, 2012) The rationale is that the value of firm's IC is represented by the difference between the book value and the market value of the firm. This is supported by Blair and Kochan, (2000) and corroborated by the finding of Kotler (2003) To strengthen this proposition, Beattie and Thomson (2005) document that companies in knowledge-intensive industries, such as pharmaceutical and media, have higher price-to-book ratios when compared to other industries. They further identified that companies in less knowledge-intensive industries, such as insurance and real estate, record the lowest price-to-book ratios. Ironically enough, current accounting models do not capture the key factors of a company's long-term value – their intangible resources (Wallman, 1995; Canibano et al., 1999; Lev and Zarowin, 1999; Hedlin and Adolphson, 2000). An organizations' book value only considers the organization's tangible assets, revenues, profits and liabilities (Sexton, 2002) whereas an organization's market value documents its actual worth (Roos et al., 1998)

Notwithstanding the above anachronism, it has to be borne in mind that no company is immune to the vagaries of the capital market. The capital markets arena is where the success or failure of equity-dependent public companies is largely determined: the company's cost of capital is determined in the capital markets, based on the information available to investors, equity offerings for capital expenditure and R&D (both IPOs and seasoned stock offerings) are prevalent throughout the world. Share prices-the outcome of investors' expectations and trades – directly affect managers' compensation and increasingly their future. Moreover, investor discontent, sparked by disappointing news and chronically depressed equity values, is the prime trigger for activist shareholders. And when investor discontent persists, a takeover and managerial overhaul ensues. And when short sellers spread negative rumors about a company, activist hedge funds prey on companies in distress. Furthermore, share prices patterns – growth or decline – are a beacon for highly qualified employees to join, stay or leave the organization (Lev, 2012).

Capital market intermediaries (buy- and sell-side analysts) and various shareholder advisory services provide actionable data to investors. Research has shown that financial analysts are often overly optimistic about companies' sales or earnings, leading to investor disappointments when the reported numbers fall short of expectations. Research also shows that shares of intangibles-intensive ( R&D, brands) companies are often undervalued by investors, leading, if uncorrected, to excessive cost of capital and lower corporate investment and growth. How will they be able to secure investors' and lenders' backing for investments in growth (R&D, IT, brands), corporate restructurings or strategic

shift? How will they fend off disruptive activist investors and trial lawyers? For managers, it's about protecting the core of their businesses – not to mention their jobs. Information asymmetry exists because investors and creditors do not usually have access to the same information as managers (Ragunandan et al, 2012)

### 3.3. Capital markets not only the barometer

While presenting the budget for the fiscal 2013-14, P. Chidambaram, the Finance Minister of India said; "I do not make a budget for the rating agency. I make a budget for the people of India". (The Economic Times, March 2, 2013, p.3. "Because the credit rating firms (with due respect to their erudition) is an industry that violates all definition of conflict of interest. Debt issuers hire these firms and pay them to rate their securities, and the investing public relies upon the ratings. The three that dominate the field are S&P, Moody's and Fitch. In 2009, an employee of Moody's, who had resigned, publicly accused his employer that it had knowingly given high ratings for dodgy securities and that his objections while he was employed were not taken seriously. The US Federal government has now sued S&P for having violated its own standards by giving rosy ratings for mortgage bonds, especially the collateralised debt obligations (CDOs), which included bundles of sub-prime mortgages. A US government inquiry commission had found that the credit rating firms were key enablers of the financial meltdown. .... What about the 'greedy' individuals in companies who made decisions that drove the corporate behavior. Our attempt to regulate capitalism has not made a dent there" (C.Gopinath, Professor of International Business and Strategic Management at Suffolk University, Boston, US in The Hindu BUSINESS LINE, February 25, 2013, p.8)

Moreover, economic forecasting is an art and not science. We need to understand the the science behind the art (Raghuram G Rajan, Chief Economic Adviser to the Government of India – currently the Governor of the Reserve Bank of India - The Hindu BUSINESS LINE, February 28, 2013, p.2) with 'fiscal marksmanship (precision or accuracy of forecast, targets and estimates (p.5) because economics must be a science for wellbeing of society, not for high-sounding terminologies. That is why the Indian Budget of 2013-14 focuses to achieve 'inclusive growth and a sustainable economy'.

### 4. IC, Capital markets and Modern Business

In capital markets, silence is not golden. No news is bad news. Disengagement from investors is not an option. The key is providing valuation-relevant information not required by accounting rules. When the intangibility of a company's most important assets makes it extremely hard to figure what that company is really worth (Paul Krugman in New York Times, October 22, 2000, p. 15), IC is going from reporting as a position to a process view of the nonhierarchical interaction and interdependencies between the IC components that shape value. It has many benefits from a strategy, leadership and IC quality viewpoint. (Edvinsson, 2013) Ironically enough, accounting

rule-makers are struggling with ways to deal with the new business environment in which investments in intangibles assets (expensed outlays for resources that contribute to cash flow over multiple future periods) are overtaking investments in booked intangibles assets. As a result, today's transaction-based accounting system understates assets and distorts earnings. These accounting distortions are not only a major problem for individual firms but also impact the usefulness of national income accounts. The bottomline is that a public firm cannot retreat from capital markets – that affect its performance and the career of corporate executives (Lev, 2012)

In the development of a standardized accounting treatment of IC, there are two streams. (a) the one that improves information about intangibles by making it easier to treat them as assets in financial statements and (b) the approach to encourage and ensure voluntary disclosures and enhance the availability of non-financial information about the investment in, and management of, intangibles (Shaik, J.M, 2004).

*Firms with a high degree of intangibles supply more non-financial information in the annual report to inform investors about their value-creating processes (Flostrand and Strom, 2006). Hence, the recognition of this paper to delve into this new business reality that forces a new balance to emerge, in which the past is balanced by the future and the financial by the non-financial – Intellectual capital (Edvinsson and Malone, 1997, p.12).*

Little wonder, IC is the Holy Grail of modern business.

## 5. IC : The Holy Grail of Modern Business

On December 31, 2000, Enron's market value was \$75.2 billion, while its book value (balance sheet equity) was \$11.5 billion. The market-to-book gap of almost \$64 billion, while not equal to the value of intangibles (it reflects, among other things, differences between current and historical-cost values of physical assets), appears to indicate that Enron had substantial intangibles just half a year before it started its quickslide to extinction. This naturally raises the questions: Where were Enron's intangibles? And even more troubling: Why did not those intangibles—a hallmark of modern corporations—prevent the firm's implosion? If intangibles are “so good”, as many believe, why Enron's situation became so bad? Intangible-intensive firms are “growing in size and importance”, a fact that makes the study of the measurement, management, and reporting of intangible assets so relevant and exciting, irrespective of Enron the intangibles-challenged sorry affair. (Lev, 2002). Hence, the 21<sup>st</sup> century war cry: “Be honest or be gone” (Anthony Jenkins, CEO of Barclays in The Financial Express, February 14, 2013)

### 5.1. IS INTELLECTUAL CAPITAL A SILVER BULLET?

How can Intellectual Capital be a growth engine despite global cataclysmic, tectonic economic shifts?. Take for instance the Indian Information Technology (IT) industry. For the fiscal ending March 2013, it clocked export revenues of \$75.8 billion

with a year-on-year (YoY) growth rate of 10.2 percent on fluctuating dollar terms. While on a constant currency basis, it would be at 10.9 per cent. This growth is despite the challenges in the global market including a slowdown in key markets such as the US and Europe. The prediction is, the Indian IT sector will grow 12 to 14 % during 2013-14. (Som Mittal, President, National Association of Software and Services Companies, in The Hindu BUSINESS LINE, February 13, 2013, p.7). To drive home the point that Human capital is central to success story, India would give an average of 14.1% pay hike in 2013 to its key talent while average increments across the board would be 10.3% (Aon Hewitt in Economic Time, February 21, 2013). A clear illuminating illustration of Talent, Intelligence and knowledge as the Worldwide Economic Force and what it means to managers and investors (Crawford, 1991). People make business and the focus shifts from tangibles to intangibles (Dr.T.V.Rao regarded as ‘the Father of Indian HRD’ in Ascent, The Times of India, February 11, 2013)

However, the traditional outsourcing model – which served the Indian IT industry extremely well for over two decades – is now being left behind by most players. Creating Intellectual property (IP) based products in association with clients is now being actively worked out. In this context, intellectual property (IP) will soon be the key differentiator in IT (Kris Gopalakrishnan, Infosys executive co-chairman in Financial Express, February 11, 2013, p.1). iGate, an Indian IT major aims to shake the IT industry billing model by charging for results instead of basing fees on the time and labor put in by the armies of staff working for India's big firms. Correspondingly, the intellectual content of education is such that of the one lakh Indian students enrolled in the US during 2011-12, a whopping 70% were enrolled in the STEM (Science, Technology, Engineering and Maths) field (Ishani Duttgupta in the THE ECONOMIC TIMES magazine, February 10-16, 2013)

In a study (Ohlson and Bever, 2008, p.34) of more than five hundred Fortune 100-sized companies that experienced true inflection points across fifty years (since 1955), fifty ‘stalls’ were identified. The data obtained from pre- and post-stall years, assembling analyst reports, financial filings, business press coverage, office memoirs and interviews with key executives revealed that the stall factors are knowable and preventable. Uncontrollable factors accounted for only 13% (downturn 4%, regulatory actions 7%, geopolitical context 1% and national labor market inflexibility 1%). Strategic (failures of executive team direction) and organizational factors accounted for 87% of stalls that were controllable. A case to prove that IC can by and large reign in the yo-yo market. Though the market-to-book value is frequently invoked to motivate the focus on intangibles, the asymmetric treatment of capitalizing (considering assets) physical and financial investments while expensing intangibles leads to biased and deficient reporting of firms' performance and value (Lev, 2001). Establishing an evaluation system which focuses on value creation and not only on cost is the challenge for many companies (Pulic, 2000). The Value Added Intellectual Coefficient (VAIC<sup>TM</sup>) of Pulic (2000) provides a standardized and consistent measure that can be used to compare companies

(Shiu, 2006). This complements a quantitative longitudinal study with empirical qualitative research in evolving a theory that seeks to understand the process of IC management, measurement and reporting (ICMMR).

## 6. INTELLECTUAL CAPITAL – THE INDIAN SCENARIO

According to a World Bank Report in 2012, the market capitalization of listed companies (% of GDP) in India was reported at 54.94 in 2011. India's market cap as a proportion to world market cap was 3.34% in 2010. This was \$1.5 Trillion against the world total of \$46.5 trillion (The Hindu BUSINESS LINE, September 22, 2010) The Indian economy is set to grow at 6.8% in 2013-14 after showing a sharp deceleration in the preceding two years. Corporate India would accelerate profit growth to 25% in 2013-14 from an expected 14.5% in 2012-13 (Centre for Monitoring of Indian Economy in The financial Express, February 18, 2013, p.5).

“India's rise is going to be one of the great phenomena of the century and it is incredibly impressive to see the vibrancy of your democracy, the great strength of your diversity and the enormous power of your economy that is going to be one of the top three economies by 2030” said the British Prime Minister David Cameron during his visit to India (The Economic Times, February 19, 2013, p.1). As per WTO's International Statistics, 2012, in merchandise trade India is the 19<sup>th</sup> largest exporter in the world with a share of 1.7 per cent and 12 the largest importer with a share of 2.5 per cent in 2011. In commercial services, the country is the eighth largest exporter in the world with a share of 3.3. per cent and the seven largest importer with a share of 3.1 per cent. Due to the global demand slowdown, the country's overseas shipment during the April – January period of 2012-12 is shrunk by 4.86 per cent to \$239.6 billion

The era of austerity and disruptive technologies changing the value proposition in a market bring frugal engineering to the fore pitch-forking intellectual capital on to the centre stage to drive jugaad innovation to think frugal, be flexible and generate breakthrough growth ( Radjou, et al., 2012). This is true of the Indian automotive industry thriving Productivity, Quality, Cost, Delivery, Safety and Morale of employees (PQCDSM) perched on the Japanese TQM model.

Slowdown is a wake-up call for increasing the pace of action and reforms. (Raghuram Rajan, Chief Economic Adviser to the Government of India in The Hindu BUSINESS LINE, February 28, 2013, pp.1-2)). As per a Confederation of Indian Industry-Boston Consulting Group (CII-BCG) survey, India Inc wishes to be the 'Germany of the East' and not 'Factory to the West' (Banerjee, 2013). However, when compared with the Western world, recognition of IC in India as a driver of wealth creation is at a nascent stage. This is borne by a study sponsored by the Accounting Research Foundation of the Institute of Chartered Accountants of India (ICAI) in 488 companies across 60 sectors. The study of the Indian accounting regulator is of the view that 88% of companies disclosed less than 1% of their intangibles in their financial statements. What is more, not even 1% of

companies disclosed more than 25% of the intangibles value in financial reports. However, 83% were of the view that disclosure practices would improve company valuations and 87.5% believed that it would be useful to investors. Only 8% said that it would not improve valuations nor be useful to investors (Mishra and Jhunjhunwala, 2008).

## 10. ICMMR – An evergrowing, never-ceasing work-in-progress

When such is the core that is occupied by IC in today's world of business, intellectual capital management, measurement and reporting (ICMMR) becomes indispensable and imperative. The main objective of the authors of this paper was to conceptually collate the current IC theory in the era of Human Capital where emergence of Talent, Intelligence and Knowledge as the worldwide economic force is a reality and what it means to managers and investors (Crawford, 1991) is indispensable and imperative. This would enhance the utility value on the “measure to manage” platform.

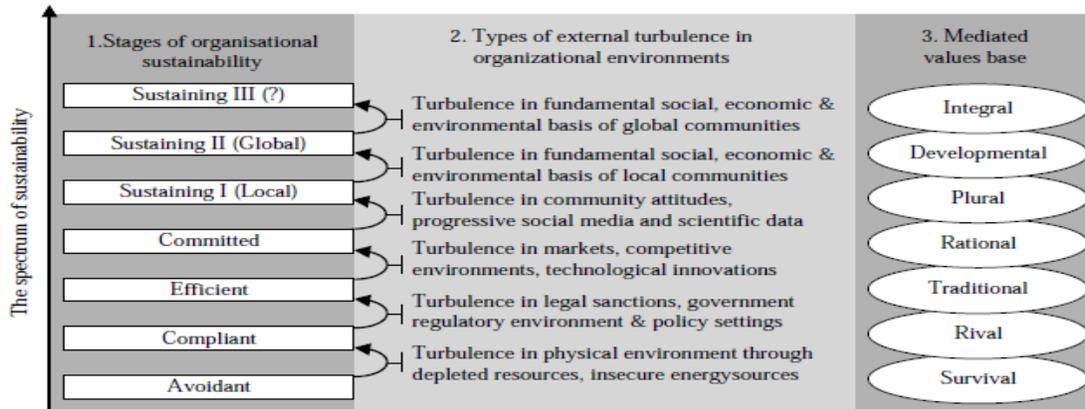
## 7. IC Voluntary Disclosure (ICVD) and Sustainability

Turbulent external environments can act as mediating means by which organisations learn to develop from one stage of sustainability to another (or alternatively by which they regress to more basic organisational forms). Figure 2 shows the types of turbulence in external organisational environments that can mediate the learning processes of moving from one form of sustainable organizing to another. For example, turbulence in an organisation's physical environment through depleted physical resources or insecure sources of energy may signal the need to shift to a compliancy approach to meeting sustainability demands.

Similarly, turbulence in government regulations and policy settings may stimulate an efficiency approach which supersedes concerns about sanctions and regulations to focus on the cost savings and processing advantages available from more efficient technologies. From this perspective, turbulence in an organisation's external environment can become a trigger for more visionary types of organising and planning. This is why, as Eijnatten (2005) points out, one of the definitive characteristics of dealing with the complexity of turbulent organisational environments is that “planning is done by developing desirable future scenarios”. The development from one stage to another is fundamental to the future-oriented kind of planning that is definitive of authentic understandings of sustainability.

Voluntary disclosure is considered particularly important in resolving the inability of traditional financial statements to capture value stemming from firm's intellectual capital (Arvidsson, 2011). According to Garcia-Meca et al. (2005) ICVD can be disclosed through different channels. Public channels – such as annual reports and accounts, interim reports, initial public offerings, web sites, intellectual capital reports and sustainability reports – are oriented to informing a broad set of stakeholders, while private channels – such as one-to-one meetings, presentations to financial analysts and conference calls – are oriented towards stakeholders that are more interested in the analysis of the firm-value creation process.

Figure 2. Turbulent environments as mediating means for transformation towards more expansive forms of sustainability (Adapted from Edwards, 2009)



Studies have demonstrated that firms provide ICVD information to communicate their corporate culture, strategy and future direction, to retain and attract quality employees and customers, and to create more synergetic collaborations with partners as well as manage the perceptions of the capital market (Beattie and Thomson, 2010). Del Bello (2006) suggested a possible level of integration between intellectual capital reports and sustainability reports: a weak integration process generating a set of common indicators between the two types of reports; and a strong integration process between the two types of reports generating a new, single report. Oliveira et al. (2010) suggested that intellectual capital report guidelines (Meritum, 2002; Danish Ministry of Science, Technology and Innovation (DMSTI), 2003) and sustainability report guideline (Global Reporting Initiative (GRI), 2006), have some similarities in terms of purpose elements included, target groups and expected benefit

Castillo-Polo and Gallardo Va'zquez (2008) argued for the integration of the two reports for the following reasons: (a) The use of the same methodology to construct the reports. Both reports are voluntary and use a set of indicators with a narrative section to describe their objectives. These technical similarities could reduce the high costs of preparing the company voluntary report., (b) the elimination of information redundancy to stakeholders caused by the proliferation of several similar frameworks, (c) better use of social and intellectual capital information for both internal and external purposes, (d) the possibility to demonstrate the interrelationship between intangibles and corporate social responsibility activities, (e). The existence of common and overlapping elements in both reports, especially in terms of human and relational capital and (f) The existence of a common purpose for intellectual capital and sustainability reports, which are both designed to improve corporate image.

According to Barnett (2007) and McWilliams et al. (2006), intangibles play an important role in relation to the firm's sustainability activities with correlating effects that are able to

influence firm value (Hillman and Keim, 2001). Branco and Rodrigues (2006) theoretically explain how investments in corporate social responsibility activities generate a set of internal and external benefits in relation to intangibles. Internal benefits include the development of new internal human capital resources and capabilities whereas external benefits are related to stakeholder relations and to the improvement of the firm's reputation. Likewise, Surroca et al. (2010) empirically demonstrate the existence of a virtuous circle between corporate social responsibility investments, intangibles and financial performance.

Although the sustainability report is designed to communicate how a firm's actions meet the social and environmental expectations of stakeholders by providing financial and non-financial information of the social, environmental and financial results obtained, it should also contain some information in relation to intellectual capital since, as documented by previous analyses, a strict relationship exists between intellectual capital and sustainability activities (Cinquini et al, 2012). Cordazzo (2005) analysed the contents of 83 sustainability reports of Italian companies and found ample information on employee training, customer satisfaction and suppliers.

### 7.1. Dimensions of Sustainability

Since the concept of sustainable development, a development "which meets the needs of the present without compromising the ability of the future generations to meet their own needs", was coined by the Brundtland Commission Report (WCED, 1987, p. 8), Organizations have been pressured into changing the way they do business: to embed, monitor and report on more than just their economic performance. As a response, some effort to establish sustainability indicators and measures at the business scale has been made. Though several initiatives have been proposed to measure sustainability, eight engage attention of researchers as they address all three dimensions of sustainability (economic, social and environmental); have a wide focus (national or corporate); and are not strongly based on another initiative or guideline ( Delai and Takahashi,2011).

They are tabulated against the sustainability dimensions in Table I.

Table I : Sustainability dimensions of initiatives

Dimension	GRI	IChemE	DJSI	TBL	Ethos	CSD	Dashboard	Barometer
Economic	✓	✓	✓	✓		✓	✓	
Social	✓	✓	✓	✓	✓	✓	✓	
Environmental	✓	✓	✓	✓		✓	✓	
Institutional						✓	✓	
Human wellbeing								✓ <sup>a</sup>
Eco-system wellbeing								✓
Eco-environmental				✓				
Eco-social				✓				
Socio-environmental				✓				
Eco-socio-environmental	□			✓				

Note: <sup>a</sup>The Human wellbeing dimension also considers the economic dimension

The eight sustainability measurement initiatives picked to be the base of a possible reference model are given below:

1. *The Indicators of Sustainable Development of the Commission on Sustainable Development* in the United Nations in 1995. Its main objective was to make indicators of sustainable development accessible to decision-makers at the national level, by defining them, elucidating their methodologies and providing training (Commission on Sustainable Development, 2002). It is an initiative that follows the Brundtland report concept of sustainable development and focuses on four dimensions of sustainability: social, environmental, economic and institutional.

2. *The Dashboard of Sustainability*. Developed in 1998 by the Consultative Group for Sustainable Development Indicators, it is an index of sustainability that uses a “car dashboard” as a graphic interface to inform on a country performance towards sustainable development. The dashboard is divided into four dials labeled to the dimensions of sustainability and its main advantage is that it shows the overall sustainability of a nation in a very easy way as well as the performance of each dimension.

3. *The Barometer of Sustainability*. Developed by The World Conservation Institute (IUCN), the barometer measures sustainability at local, regional or national levels via a performance scale of human and environmental wellbeings. Sustainability is defined as a balance between human wellbeing – “condition in which all members of society can determine and meet their needs, from a range of choices” – and ecosystem wellbeings – “condition in which the ecosystem maintains diversity and quality, its capacity to support all life, and its potential to adapt to change to provide future options” (Prescott-Allen, 2001, p. 7). The Barometer’s interface is very friendly like the Dashboard of sustainability.

4. *The Global Reporting Initiative (GRI)*. This is a voluntary framework for reporting on an organization economic,

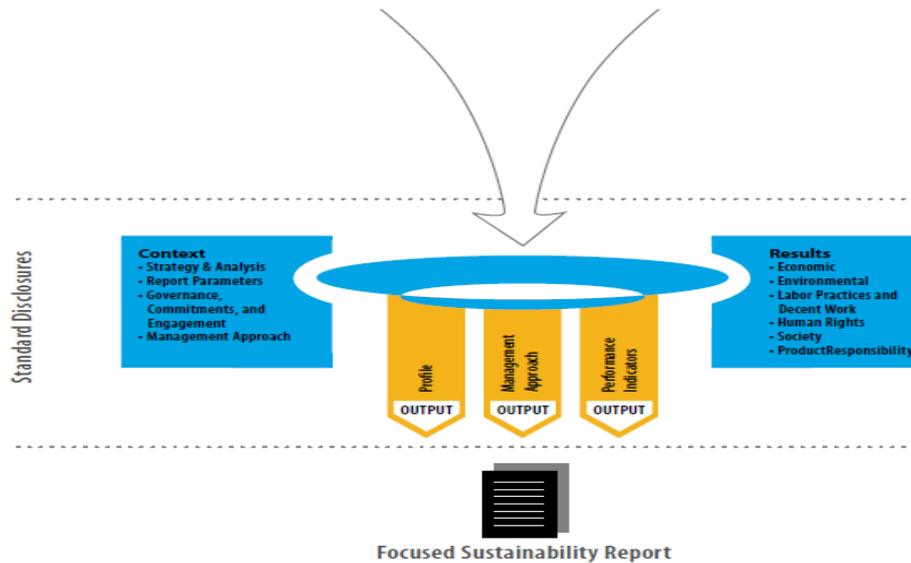
environmental and social performance (GRI, 2002) launched in 1997 by the Coalition for Environmentally Responsible Economies (CERES) and the United Nation Environment Programme (UNEP). It intends to help companies and their stakeholders to understand and communicate their contributions to sustainable development, improving the quality and utility of sustainability reports. The GRI focuses on the triple bottom line concept – balancing the complex relationships between current economic, environmental and social needs in a manner that does not compromise future needs (GRI, 2002). GRI G3 guidelines of 2011 are currently practiced. The overall GRI standard disclosures of Version 3.1(www.globalreporting.org) are given in Figure 3.

5. *The Sustainability Metrics of the Institution of Chemical Engineers (IChemE)*. This is a set of indicators developed to measure sustainability performance of process industries. According to this initiative, sustainability can be summarized in the triple bottom line “covering the three components – environmental responsibility, economic return (wealth creation), and social development” (IChemE, 2005, p. 4).

6. *The Dow Jones Sustainability Index (DJSI)*. This was established in 1999 to track the performance of the top 10 percent of companies in the Dow Jones Global Index that lead the field in terms of corporate sustainability (Jones, 2005). According to this Index, sustainability means “create long-term shareholder value by embracing opportunities and managing risks deriving from economic, environmental and social developments” (Jones, 2005, p. 7).

7. *The Triple Bottom Line Index (TBL)*. This is an aggregate index that assesses sustainability performance of companies. Sustainability is the balance between financial growth, ecological improvement, and ethical equity (Wang, 2005).

Figure 3: The overall GRI standard disclosures



8. *The ETHOS Corporate Social Responsibility Indicators*. This is a set of indicators launched in 2002 designed to help Brazilian companies “to learn and assess company management regards to business social responsibility (BSR) practices, business strategy and the monitoring of company general performance” (Ethos, 2005, p. 3). It is a self-evaluation and report guideline that focuses mainly on social aspects of sustainability and considers corporate social responsibility (CSR) as a way to manage while addressing competitiveness, sustainability and societal requirements.

For the purist, sustainability implies nothing more than stasis – the ability to continue in an unchanged manner – but often it is taken to imply development in a sustainable manner (Marsden, 2000; Hart and Milstein, 2003) and the terms sustainability and sustainable development are for many viewed as synonymous. There are two commonly held assumptions which permeate the discourse of corporate sustainability. The first is that sustainability is synonymous with sustainable development. The second is that a sustainable company will exist merely by recognising environmental and social issues and incorporating them into its strategic planning. Sustainability is focused on the future and is concerned with ensuring that the choices of resource utilisation in the future are not constrained by decisions taken in the present.

Gray et al. (1987) challenge the traditional role of accounting in reporting results and consider that, rather than an ownership approach to accountability, a stakeholder approach, recognising the wide stakeholder community, is needed. Moreover Rubenstein (1992) goes further and argues that there is a need for a new social contract between a business and its stakeholders. Sustainability is concerned with the effect which action taken in the present has upon the options available in the future (Crowther, 2002). Sustainability, therefore, implies that society must use no more of a resource than can be regenerated. This can be defined in terms of the carrying

capacity of the ecosystem (Hawken, 1993) and described with input-output models of resource consumption. Thus the paper industry, for example, has a policy of replanting trees to replace those harvested and this has the effect of retaining costs in the present rather than temporally externalising them. Similarly motor vehicle manufacturers such as Volkswagen have a policy of making their cars almost totally recyclable. Viewing an organisation as part of a wider social and economic system (Hart, 1997) implies that these effects must be taken into account, not just for the measurement of costs and value created in the present but also for the future of the business itself.

The starting point of sustainability must be taken as the Brundtland Report (WCED, 1987) because there is explicit agreement within that Report and because the definition of sustainability in there is pertinent and widely accepted. Equally, the Brundtland Report is part of a policy landscape being discussed and developed by the United Nations, Nation States and big business through the vehicles of the WBCSD and ICC (Beder, 1997; Mayhew, 1997; Gray and Bebbington, 2001). Ever since the Brundtland Report was produced by the World Commission on Environment and Development in 1987 there has been a continual debate concerning development.

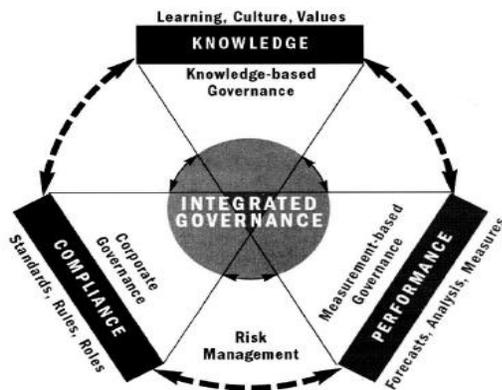
There are therefore four aspects of sustainability which need to be recognised and analysed, namely: (1) societal influence, which we define as a measure of the impact that society makes upon the corporation in terms of the social contract and stakeholder influence; (2) environmental impact, which we define as the effect of the actions of the corporation upon its geophysical environment; (3) organisational culture, which we define as the relationship between the corporation and its internal stakeholders, particularly employees, and all aspects of that relationship; and (4) finance, which we define in terms of an adequate return for the level of risk undertaken. These four must be considered as the key dimensions of sustainability, all of which are equally important. Most analysis of sustainability

(Dyllick and Hockerts, 2002; Spangenberg, 2004) do not recognise financial performance as an integral part of sustainability.

### 8. IC Voluntary Disclosure (ICVD) and Governance

Corporate governance is responsible for creating, developing, and leveraging the IC residing in the people, structures, and processes of the firm (Keenan and Aggestam, 2001, p. 259). Specific studies have already analysed the relationship between corporate governance and ICVD (Li et al., 2008) According to Tricker (1984, p. 7), “management is about running the business” whereas “governance is about seeing that it is run properly”. Corporate governance, thus, sets the rules for the relationship between management and employees and the activities for creating and sharing value. It consequently presents guidelines for proper resource allocation and management. An integrated governance framework is given in figure 4. While companies’ resources may take several forms such as capital or financial resources, intellectual resources are the brain gain of any organization. They constitute a vital component and a strategic asset; they cultivate growth and their efficient management is a crucial driver of successful performance. Thus, it is no longer enough for companies to acquire human capital. They are nowadays faced with the necessity of adopting and incorporating structures and processes to effectively deploy, protect and retain it (Keenan and Aggestam, 2001; Saint-Onge, 1996; Bontis, 1996; Bradley, 1997). This asset has turned to be an element of competition among companies who strive to attract the most valuable and skillful resources.

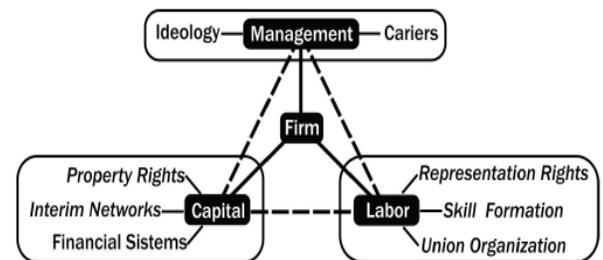
Figure 4: The Integrated Governance Framework (Busco et al. 2005)



One of the main issues which has been exercising the minds of business managers, accountants and auditors, investment managers and government officials all over the world is corporate governance. Corporate governance, the current buzzword the world over, can be considered as an environment of trust, ethics, moral values and confidence – as a synergic effort of all the constituents of society – that is the stakeholders, including government; the general public etc; professional/service providers – and the corporate sector. Often a company’s main

target is to become global – while at the same time remaining sustainable – as a means to gain competitive power. But the most important question is concerned with what will be a firm’s route to becoming global and what will be necessary in order to get global competitive power. (Aras and Crowther, 2008). In practice there are four principles of good corporate governance, which are: (1) transparency; (2) accountability; (3) responsibility; and (4) fairness. An approach by Aguilera and Jackson (2003) which emerged from institutional theory is focused on “actorcentered institutionalism”, which explains firm-level c. g. practices in terms of institutional factors that shape how actors’ interests are defined and represented. Those factors describe the institutional domains including three dimensions - management, capital and labor (Figure 5).

Figure 5: The three dimensions of governance of a firm



Source: Adapted to Aguilera & Jackson, 2003.

Two of the main reasons for this upsurge in interest are the economic liberalisation and deregulation of industry and business and the demand for new corporate ethos (Joyner and Payne, 2002) and stricter compliance with the law of the land. One more factor to the new paradigm for corporate governance is to stay in tune with the changing times is the demand for greater accountability of companies to their shareholders and customers (Bushman and Smith, 2001). With their increased level of responsibility and accountability to their stakeholders, organisations feel that there is a need to develop a code for corporate governance so as to guide them towards appropriate stakeholder relations.

Investors are demanding that companies implement rigorous corporate governance principles in order to achieve better returns on their investment and to reduce agency costs. Most of the times investors are ready to pay more for companies to have good governance standards (Beiner et al., 2004). Similarly a company’s corporate governance report is one of the main tools for investor’ decisions. Because of these reasons companies cannot ignore the pressure for good governance from shareholders, potential investors and other markets actors. Corporate governance will be one of the most important indicators for measuring risk. Another issue is related to firm credibility and risk. Credit rating agencies analyse corporate governance practices along with other corporate indicators. Because of all of these factors, corporate governance receives high priority on the agenda of policymakers, financial institutions, investors, companies and academics.

Crowther (2000) traces an archaeology of corporate reporting which shows that, over time, the amount of information provided – first to shareholders, then to potential investors (Gilmore and Willmott, 1992), then to other stakeholders – has gradually increased throughout the last century, as firms recognised the benefit in providing increased disclosure. Similarly the amount of disclosure regarding CSR activity has been increasing rapidly over the last decade, as firms have recognised the commercial benefits of increased transparency. Therefore it is reasonable to argue – as we are doing – that the amount of information regarding the relationship between governance and sustainability will also increase, not just as firms gain a clearer understanding of that relationship but also as they understand the benefits of greater disclosure in this respect.

The ability of firms to thrive indeed hinges on their capacity to properly use all resources at their disposal – financial, physical, and intellectual (Safieddine et al, 2009). The corporate governance principles set out by both the World Bank (Fremond and Capaul, 2002) and the OECD place special emphasis on protecting employees' rights and directing companies' efforts towards better serving their needs. As Aguilera et al. (2006, p. 148) states “recognising that firms are situated within a given society and political tradition, which will influence the decisions of individuals within the firm, one can conceptualise corporate governance as relationships within the firm and between the firm and its environment”.

## Conclusion

While the rate of intangible investment may be affected, to some extent, by economic circumstances and capital market conditions, its centrality in corporate success, economic growth and the enhancement of social welfare is unchallenged (Lev, 2001, p. 131). The field of IC disclosure is still relatively 'new' and slowly evolving. Hence, accountants, business managers, and policy makers have all to grapple with its concepts, philosophy, and detailed methodologies for IC applications. Real-life corporate experience suggests that rushing into the details of IC measurement before understanding the fundamentals is going to prove counter-productive (Bhasin, 2011)

Built to flip is out. Built to last is in. The trajectory of a company depends on whether it is led by people (at all levels) ordained with rare and mysterious qualities that cannot be learned by others (Collins and Porras, 2000). Needless to say, it is these people who are the personification of intellectual capital whose elements are atomized as human capital, structural capital, relational capital/customer capital, innovation capital and what have you. In a world replete with knowledge thanks to the World Wide Web (read Wisdom) the authors would like to sign off with an aphorism of Goethe:

"Knowing is not enough; we must apply.  
Willing is not enough; we must do."

The core and sacrosanct aim of this article is not to address the Cardinals and Bishops inside the “IC cathedral” preaching to the converted but to change the hearts and minds of those in practice, if we may have the luxury of plagiarizing the metaphor of Dumay (2012).

There is nothing as practical as a good theory, opined Albert Einstein. Fundamentals are everything, said Stephen Covey. The key contribution of this paper was to establish a common theoretical foundation collating from international literature the robust fundamentals (context, significance, definitions, categorization and reporting models) which is the quintessence in the IC domain for a structured and scientific thinking.. This would be a springboard for future research to move on to the next maturity level from theory to practice through Intellectual Capital Benchmarking system (ICBS) leading to Intellectual Capital Management, Measurement and Reporting (ICMMR) that is at the heart of the IC domain. The rationale behind the study for this paper is not new, but the focus and thrust taken is quite different from existing literature. In this context, organizations will have no choice but to appease their audience. Hence, academic researchers need to support this venture (Bontis, 2001). Grant (1996) makes it clear in turn that intellectual capital alone does not confer competitive advantage in the absence of proper organization and deployment. There is indeed much evidence to suggest that intellectual capital is more fundamental to the success of knowledge-intensive industries (Wright et al., 1994; Jackson and Schuler, 2007). The authors are of the view that empirical work with integrated theoretical, methodological and pragmatic perspectives has to be galvanised. For, as other factors of competitive advantage become equalized, intellectual capital management (ICM) will become the differentiating factor between organizations (Teece, 2002).

The corporate annual report is viewed as a means by which organizations seek to establish an image in the public sphere through voluntarily reporting, emphasizing the role of the annual report in constructing and presenting a “reality” of corporate life (Hines, 1989) and, seeking to promote the interests of an organization by providing a “snapshot” of the mindset of corporate management (Gray et al., 1995).

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