The Importance of Integrated Reporting in Value Creation (Intellectual Capital):A Theoretical Framework

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Abstract--- *Corporate reporting has been many times evolved in order to meet the stakeholders' expectations and needs. Now it is time for Integrated Reporting (IR). The wave of IR is coming to Malaysia as Security Commission (SC), Malaysian Institute of Accountants (MIA), Malaysian Accounting Standard Board (MASB) and more other non-profit organizations keep promoting the implementation of IR. The concept of IR is a reaction to the challenge companies face to create value and the related demands of users of corporate reports to receive decision useful information on the companies' potential for future value creation This paper is a literature study on how IR is associated with the value creation of a business especially on intellectual capital(IC).*

Keywords--- *Firm Performance, Intellectual Capital, Integrated Reporting, Value Creation.*

I. INTRODUCTION

Traditionally, corporate reporting has been adequate for assessing organisational value. However, current trends in the business environment, such as globalisation, changing accounting perspectives, increased stakeholder expectations and the transition to a knowledge economy have impacted the value relevance of financial statement information (Ashton, 2005). The way companies do business has changed dramatically over the past few decades. In the current business world, investment in tangible assets is no longer a key indicator of a potential for value creation; intangible assets are now the main value drivers in many companies. Other non-financial factors (globalization, developments in technology, rapid population growth, increases in human needs and in the number of environmentally sensitive people, while machine and labour-based production have decreased, information-based production has increased, also climate changes in negative direction, social responsibility problems and raw material shortages have been observed) also provide information on a company's potential for sustainable value creation, such as corporate social responsibility (CSR) activities and relationships with key stakeholders (Shoaf and Jermakowicz, 2019).

Krzus (2011) added that corporate reporting should provide insights into how a company views itself and its role in society, communicating company's performance both good and bad and indicating commitments to improve future performance and establish accountability for meeting objectives. Integrated Reporting (IR) was developed to fill such reporting gaps, IR involves promoting a new international reporting framework that concisely combines financial and non-financial data. It helps companies to restore the confidence of investors as well as their various internal and

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external stakeholders through the publication of clearer information on long-term value creation. Integrated reporting is a way for companies to illustrate and promote not only their financial performance, but also their performance in relation to social, environmental and governance issues (IIRC,2013).

Similarly, Amran and Ooi (2014) rose that the contents of corporate reports have undergone a tremendous change; particularly, non-financial reporting has improved a lot in the last two decades. In addition to financial information, disclosure of non-financial information is the trend among business organizations. Reporting of non-financial information allows the outside stakeholders to scrutinize the operations of the firm and provides additional accountability and transparency to all stakeholders.

Maniora (2015), pointed that the implementation of an IR might work as a trigger for companies to embrace a dynamic process of learning that can lead to the rethinking of their reporting systems and practices. Because the IR is a relatively new idea, a lead-time is probably required to achieve its full potential in terms of improving disclosure quality. IR implementation can be appreciated as a far-reaching learning process for companies

Melloni, Caglio and Perego (2017), shed light on the importance of focusing on both financial vs nonfinancial/sustainability performance when aiming at detecting impression management strategies. However, irrespectively of the IR Framework's emphasis on conciseness and completeness/balance, they found evidence seems to suggest that, in practice, firms struggle to provide reports that are concise, complete and balanced.

II. INTEGRATED REPORTING FRAMEWORK

A. The Form of International Integrated Reporting Committee (IIRC)

The importance of IR includes the involvement of the Prince of Wales, the Global Reporting Initiative (GRI) and the International Federation of Accountants (IFAC) in the formation of the International Integrated Reporting Committee (IIRC) in August 2010 (Peat, 2011). Membership of the IIRC includes the chairpersons of the International Accounting Standards Board (IASB), the Financial Accounting Standards Board, the International Organisation of Securities Commissions (IOSCO) Executive Committee, the IFAC President and the former global Chief Executive Officer of Deloitte, among others (Peat, 2011; IASPlus, 2013). The IASB announced in February 2013 that they had signed a memorandum of understanding with the IIRC to cooperate in developing an integrated corporate reporting framework (IFRS, 2013). In New Zealand, the External Reporting Board (XRB) issued an official response to the IIRC's discussion paper, "Towards Integrated Reporting – Communicating Value in the 21st Century" in December 2011. In its response, the XRB indicated that it saw IR as a relevant, timely and important reporting development and noted the potential for using IR to assist in improving reporting practice in its jurisdiction with respect to matters such as management discussion and analysis (XRB, 2011).

B. The Establishment of IR Framework

The IR Framework was released in December 2013 by the IIRC. Prior to that, a discussion paper, "Towards Integrated Reporting – Communicating Value in the 21st Century", had been published on 12 September 2011, with the public invited to provide comments (IIRC, 2011). then the IIRC (2013) announced a list of initial organisations participating in the IIRC Pilot Program Business Network, a two-year programme for initial participators to exchange their understanding, knowledge and experiences of integrated reporting. In November 2012, the IIRC released a Prototype of the International IR Framework with a call for businesses to start testing the principles of IR and evaluating their relevance and applicability. In April 2013, a Consultation Draft of the IR Framework was promulgated based on, inter alia, responses to the 2011 Discussion Paper, feedback on the Prototype Framework and input from the IIRC Pilot Programme's business and investor networks. The IR Framework released in 2013 benefited from comments received from stakeholders on the Consultation Draft.

According to Stubss and Higgin (2014) IR Framework incorporates the work of the IIRC, the GRI, The World Business Council for Sustainable Development, The World Resources Institute, the Carbon Disclosure Project and the UN Global Compact. In the same vein, Eccles and Krzus (2011) concluded that IR has its roots in earlier developments in corporate reporting, which have been evolving over the past three decades such as triple bottom line, social and environmental accounting (SEA), corporate social responsibility and sustainability reports.

The IR framework aims to support organizations in discharging complex and interdependent duties of accountability to those who are demanding an account of impacts of companies' and other organizations' activities (de Villiers and Maroun, 2018). In so doing, IR incorporates novel ideas on disclosure that seek to contribute to the ability of organizations to provide an account to providers of financial capital, stakeholders and the broader society in a single report, and in a concise manner, covering material relationships between various operating and functional units and the nature of the resources they use or affect, (IIRC, 2013).

IR is a journey and it will take more than one reporting cycle to get there. As businesses start to use IR as a tool to better understand the connections between key resources and relationships that contribute to their success, and as a result make more informed decisions, the real value of integrated thinking and the integrated report will be realized (IIRC, 2015).

C. Theories Associated With IR

It is evident that IR is associated with legitimacy theory. Suchman (1995) considers that "Legitimacy is a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions". Same boat as Suchman (1995), Burlea and Popa (2013) explained legitimacy theory is a mechanism that supports organisations in implementing and developing voluntary social and environmental disclosures in order to fulfil their social contract that enables the recognition of their objectives and the survival in a jumpy and turbulent environment. Thus, IR with a clear connectivity with corporate governance and financial reporting can lead to the higher legitimacy of an enterprise in the view of the stakeholders (Velte and Stawinoga, 2016).

Besides legitimacy theory, agency theory provides a rich theoretical framework for understanding processes in the company from the perspective principal-agent. It assumes that there is a contractual relationship and therefore the two contracting parties; principal/director/supervisor and subordinate. Problem exist when information asymmetry arises, where one party is better informed than the other one which can lead moral hazard(one party exploits the information for their own benefit) and adverse selection (arises from lack of information) (Bouckova, 2015).

As asymmetry information exists, therefore the agency theory requires the development of a financial economic information system, for those on the outside, which can enable control of the management by the agent and should aim to maximize the principal's profit. Therefore IR is a financial economic information system that can play to minimized asymmetry information, it can be shown as in Figure 1(IIRC, 2011).

In addition, stakeholder theory is another theory that seeks to explain the practice of presenting social information, focused on the role it can play in relations between organizations, governments, individuals, associations and societies in general (Gray et al., 1996, p. 45). Gray et al. reported that from an organizational point of view, this theory is based on a model of accountability for all actors, be it normative, descriptive or the explanatory power they hold in the context of CSR; and includes the responsibilities of the company and the transparent nature of its activities.

Another view is from voluntary disclosure theory, where the theory helps to narrow the information asymmetry between managers and stakeholders. Good performers in the market will be more motivated to differentiate themselves from others by increased levels of disclosure. Companies with good performances have incentives to attract investors and other stakeholders and to gain market share by disclosing relevant information in their reports. According to Abeysekera (2008), based on voluntary disclosure theory, the Board of Directors can choose to disclose information that represents good faith of companies‟ activities while fulfilling stakeholders‟ information needs. IR disclosure acts as a monitoring and control mechanisms in measuring the company‟s performance and achieving company‟s desired market value.

D. IR Framework from IIRC

IR has been defined by the IIRC as

"a concise communication about how a company's strategy, governance, performance and prospects, in the context of its external environment, lead to the creation of value over the short, medium and long term."(IIRC,2013)

IR differs from previous accounting by aiming to:

- "Improve the quality of information available to providers of financial capital to enable a more efficient and productive allocation of capital.
- Promote a more cohesive and efficient approach to corporate reporting that draws on different reporting strands and communicates the full range of factors that materially affect the ability of a company to create value over time.
- Enhance accountability and stewardship for the broad base of capitals (financial, manufactured, intellectual, human, social and relationship, and natural) and promote understanding of their interdependencies.
- Support integrated thinking, decision-making and actions that focus on the creation of value over the short, medium and long term." (IIRC, 2013)

According to IIRC (2013) an integrated report is supposed to depict the following eight elements the corresponding questions:

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1. ***Organizational Overview and External Environment***: What does the organization do and what are the circumstances under which it operates?
2. ***Governance:*** How does the organization's governance structure support its ability to create value in the short, medium and long term?
3. ***Business Model:*** What is the organization's business model?
4. ***Risks and Opportunities:*** What are the specific risks and opportunities that affect the organization's ability to create value over the short, medium and long term, and how is the organization dealing with them?
5. ***Strategy and Resource Allocation:*** Where does the organization want to go and how does it intend to get there?
6. ***Performance:*** To what extent has the organization achieved its strategic objectives for the period and what are its outcomes in terms of effects on the capitals?
7. ***Outlook:*** What challenges and uncertainties is the organization likely to encounter in pursuing its strategy, and what are the potential implications for its business model and future performance?
8. ***Basis of presentation:*** How does the organization determine what matters to include in the integrated report and how are such matters quantified or evaluated?

The IR framework is principle based, thus underlying the preparation of an integrated report are the eight guiding principles which according the Framework should inform the content and how the information is presented. They are:

1. ***Strategic focus and future orientation:*** An integrated report should provide insight into the organization's strategy, and how it relates to the organization's ability to create value in the short, medium and long term, and to its use of and effects on the capitals
2. ***Connectivity of information:*** An integrated report should show a holistic picture of the combination, interrelatedness and dependencies between the factors that affect the organization's ability to create value over time
3. ***Stakeholder relationships:*** An integrated report should provide insight into the nature and quality of the organization's relationships with its key stakeholders, including how and to what extent the organization understands, takes into account and responds to their legitimate needs and interests
4. ***Materiality:*** An integrated report should disclose information about matters that substantively affect the organization's ability to create value over the short, medium and long term
5. ***Conciseness:*** An integrated report should be concise
6. ***Reliability and completeness:*** An integrated report should include all material matters, both positive and negative, in a balanced way and without material error
7. ***Consistency and comparability:*** The information in an integrated report should be presented: (a) on a basis that is consistent over time; and (b) in a way that enables comparison with other organizations to the extent it is material to the organization's own ability to create value over time. (IIRC, 2013)

E. Benefit of IR

The aim of an integrated report is to provide managers, investors and other stakeholders with information about several interrelated dimensions that affect or can be affected by organizations. These include: the external environment, six forms of capital employed to create value (suggested as: financial, manufactured, intellectual, human, social and relationship, and natural) and the value creation process which describes how organizations interact with both the external environment and the capitals (de Villiers and Hsiao, 2018).

IIRC listed the benefit of IR as follow:

1. Thinking

Because traditional reporting occurs in silos, it encourages thinking in silos. Integrated Reporting, on the other hand, reflects, and supports, integrated thinking – monitoring, managing and communicating the full complexity of the value creation process and how this contributes to success over time. Integrated Reporting demonstrates the extent to which integrated thinking is occurring within the organization.

2. Stewardship

An Integrated Report displays an organization's stewardship not only of financial capital, but also of the other "capitals" (manufactured, human, intellectual, natural and social), their interdependence and how they contribute to success. This broader perspective requires consideration of resource usage and risks and opportunities along the organization's full value chain.

3. Focus

Annual reporting at present is largely focused on past financial performance and financial risks. Other reports and communications may cover other resources and relationships, but they are seldom presented in a connected way, or linked to the organization's strategic objectives and its ability to create and sustain value in the future.

4. Timeframe

Much of the media and regulatory attention in response to the global financial crisis has focused on "short-termism" as one contributory factor. Although short-term considerations are important in many ways, placing them in context is also essential. Integrated Reporting specifically factors in short-, medium- and long-term considerations.

5. Trust

Financial reporting focuses primarily on a narrow series of mandated disclosures. Although an increasing number of organizations are improving their transparency, for example, through voluntary sustainability reporting, in absolute terms that number is still low. By emphasizing transparency, for example, covering a broader range of issues and disclosing the positive with the negative, Integrated Reporting helps to build trust.

6. Adaptive

Today's reporting is often said to be too compliance orientated, reducing the scope for organizations to exercise an appropriate amount of judgment. While a certain level of compliance orientation is necessary to ensure consistency and enable comparison, Integrated Reporting offers a principles-based approach that drives greater focus on factors

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that are material to particular sectors and organizations. It permits an organization to disclose its unique situation in clear and understandable language.

7. Concise

Long and complex reports are often impenetrable for many readers. A key objective for Integrated Reporting is to de-clutter the primary report so that it covers, concisely, only the most material information.

8. Technology enabled

While the internet and XBRL are introducing elements of technological innovation, many corporate reports are still presented as if they were entirely paper based. Integrated Reporting takes advantage of new and emerging technologies to link information within the primary report and to facilitate access to further detail online where that is appropriate. (IIRC, 2011)

Eccles and Krzus (2010) highlighted four potential benefits arising from the presentation of an IR:

• ***Greater clarity about relationships and commitments.*** The Integrated Reporting should begin to identify financial and ESG indicators, important for the organization and the strategy pursued to reach the referred objectives. The true essence of Integrated Reporting lies in the description of how the management considers the relationship existing between such financial and non-financial indicators.

• ***Better decisions.*** The result of the previous stage will be the production of better information for the decision-making. Kaplan and Norton, relatively to BSC, provide arguments and evidence of how a better measure could allow better management decisions. A high quality of external information would result from a high quality of internal information.

• ***Increase the commitment of all stakeholders.*** It is imperative that each stakeholder can have an integrated and holistic vision of how his own interests are related to the others' and to factors which contribute to the sought level of performance.

• ***As social responsibility and sustainability*** have assumed an important role, the management of reputation risks also represents one of the most important and the most difficult risks to handle.

III. VALUE CREATION

A. What is Value?

Baier (1969) defined value that is more appropriate as the capacity of a good, service, or activity to satisfy a need or provide a benefit to a person or legal entity. This definition of value is clearly broader than the traditional definition used by some economists. It includes any type of good, service, or act that satisfies a need or provides a benefit, which may be tangible or intangible, including those that positively contribute to the quality of life, knowledge, prestige, safety, physical and financial security, as well as providing nutrition, shelter, transportation, income, etc

The concept of IR is a reaction to the challenge companies face to create value and the related demands of users of corporate reports to receive decision useful information on the companies' potential for future value creation.

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Integrated reporting offer a more holistic picture of the modern corporation by shifting away from standalone sustainability or social responsibility reports, and toward a document that communicates a broader picture of business model value creation. Adopters of integrated reporting believe that it makes a firm's strategy more transparent and that it instills greater confidence in the sustainability of the firm's business model (KPMG, 2013).

B. Value Creation Process

Value creation process is defined in the IIRC report as follows:

"The process that results in increases, decreases or transformations of the capitals caused by the organization's business activities and outputs" (IIRC, 2013).

Value is created for the organization when it creates value for other stakeholders and although organizations do not have to reveal this holistic picture, they should not ignore that integrated reporting has important relationship with capitals on process of value creation (Jhunjhunwala, 2014).

An integral component of the value creation process is the concept of integrated thinking. The IIRC (2013) defines integrated thinking as "the active consideration by an organization of the relationships between its various operating and functional units and the capitals that the organization uses or affects". Integrated reporting and thinking are promoted as a practice aimed at helping companies address pressing environmental, social, and governance issues in ways that enable them to prosper over the long term to the benefit of both their shareholders and society at large (Eccles,Krzus and Ribot, 2015).

Basically an organization's financial capital is increased when it makes a profit. Then organization spent money to educate company employees. When employees become better trained, the quality of its human capital is improved but the related training costs reduce its financial capital. The effect is that financial capital has been transformed into human capital. If employees use newly acquired skills to contribute to community organization, increase to social capital may occur and so it demonstrates the continuous interaction and transformation between the capitals, although varying rates and outcomes (IIRC, 2013).

The 'value creation process' is dependent on an organization's business model. The business model, expressed as the core of an organization, draws on various capitals as inputs and converts them to outputs and outcomes in terms of products, services, and by-products through business activities. The process of using and transforming the capitals to produce outputs and outcomes have both positive and negative effects on the capitals, the organization, and its stakeholders. Managers should assess what value is created over different time horizons and to whom the value has been created for. Sustainable value creation is unlikely to be achieved through the maximization of a single capital; thereby, organizations need to find an optimal balance and adjust their business model and strategies accordingly (IIRC, 2013).

To understand how value can be created for stakeholders, we must first understand their stakes in the company. First is shareholders who have a financial stake in the company; they have invested their financial resources in the company with the expectation that their investment will grow in value and/or will bring income. Some shareholders

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may also expect the company's practices to conform to certain norms. Second is employee who work for a company rely on the wages or salaries they receive for their livelihood. In addition, benefits, such as health insurance, pension, paid vacation time, family sick leave, childcare facilities, etc., constitute an important part of their compensation package. Third is customers who expected certain benefits from the products they purchase. In general, they remain loyal to the company as long as their needs are satisfied at a reasonable price. Customers may have an interest in the survival and well being of the company if they cannot get the products they need conveniently from another company at a comparable price. Customers may also have a stake in the reputation of the company. Fourth is suppliers who have a stake in the well being of the firm for continued business, steady source of sales revenue, referrals, and possibly technology transfer. Fifth is society at large or most cases the local community, and to some extent the people of the state the company operates in, have a stake in the company in terms of tax revenues, jobs for the residents, volunteer activities, charitable contributions, etc.

C. Dimension of Value Creation

According to Haksever, Chaganti, and Cook (2004), there are three dimensions along which value may be created or destroyed: financial, nonfinancial, and time. Financial benefits and costs are those that have an obvious short-term monetary impact on stakeholders and possibly a long-term impact as well. Nonfinancial benefits and costs are those that do not have a short-term financial impact. In other words, a benefit that has no short-term monetary impact is considered as nonfinancial even if it may hold a potential to generate financial benefits in the future. An example would be employee training provided by the company. Some of the nonfinancial benefits and costs may be intangible in nature.

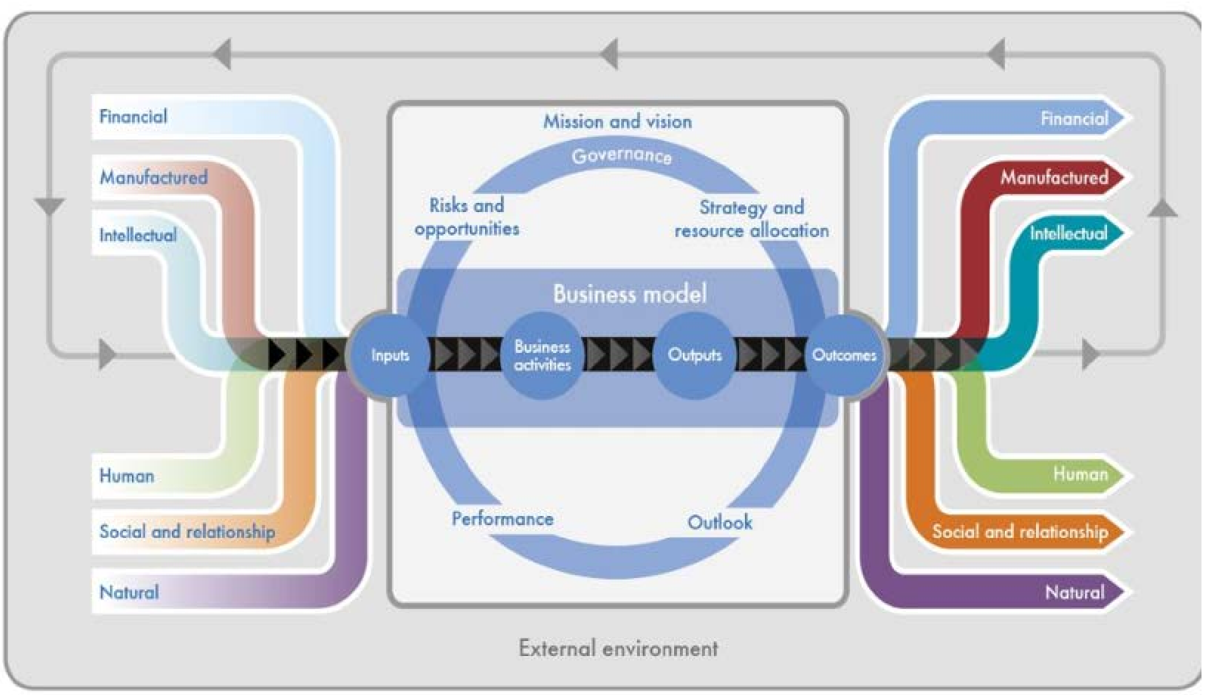

Figure 1: Value creation process

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Evan and Freeman (1988), views an enterprise as a coalition of different interest groups, and therefore a firm's value creation as the result of collective effort (although with considerable conflicts of interests between the different groups; Shaoul, 1998). This measure of value creation, that embraces all major stakeholders, fits in ideally with the value concept of the IR Framework. The value concept in the Framework seems to be broader than just shareholder value, as shown by the inclusion of more capitals than just financial capital (see Section 5.1.2) and the focus on stakeholder responsiveness (see Section 5.2.3)

According to IIRC, the value creation can be visualized through capitals; financial, manufactured, intellectual, human, social and relationship and natural. The capitals can be defined as follows:

• ***Financial capital***

The pool of the funds that is available to an organization for use in the production of goods or the provision of services, obtained through financing of, or generated through, operations/investments.

• ***Manufactured capital***

Manufactured physical objects that are available to an organization for use in the production of goods or the provision of services.

• ***Intellectual capital***

Organizational, knowledge-based intangibles.

• ***Human capital***

People's competencies, capabilities and experience, and their motivation to innovate.

• ***Natural capital***

All renewable and non-renewable environmental resources and processes that provide goods or services that support the past, current or future prosperity of an organization.

• ***Social & relationship capital***

The institutions and the relationships within and between communities, groups of the stakeholders and other networks, and the ability to share information to enhance individual and collective well-being.

(IIRC, 2013)

IV. INTELLECTUAL CAPITAL

A. Definition of IC

Many factors have enhanced the importance of IC and most of them are related to the rapid changing of the world economies, such as the development of the information technology and the information society; the even more growing importance of knowledge and the knowledge-based economy; the modification of interpersonal activities and the network society; the emergence of innovation as the principal determinant of competitiveness.

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IC can be defined as the group of knowledge assets that are attributed to an organization and most significantly contribute to an improved competitive position of this organisation by adding value to defined key stakeholders (Marr and Schiuma, 2001).

Fincham and Roslender (2003) define IC accounting as "measuring and reporting the range of human and knowledge-based factors that create sustained economic value". While Chartered Institute of Management Accountants (CIMA) widely used definition of IC is knowledge that is the value to an organization. That definition suggests that the management of knowledge creates IC. The possession of knowledge and experiences, professional knowledge and skill, good relationships, and technological capacities, which when applied will give organizations competitive advantage (CIMA, 2005).

According to Bismuth and Tojo (2008), providing the market with sufficient and appropriate information about intellectual assets improves decision-making by investors and helps discipline management and boards with positive economic consequences. Ensuring that the non-financial information is consistent, comparable over time and across companies, material and reliable would allow investors to better assess future earnings and the risks associated with different investment opportunities, thus reducing information asymmetry, reducing biased or unfounded earnings estimates, unrealistic valuations and unjustified share price volatility. This in turn increases market liquidity. There is evidence that improved information about intellectual assets and company strategy improves the ability of firms to secure funding at a lower cost of capital

B. Dimension of IC

Stewart (1997) argues that IC gauges the intellectual resources, knowledge, experience, information, competitiveness, and learning of organizations used for the purposes of wealth production. The World Intellectual Capital/Assets Initiative (WICI) (2016) considers IC as "the internal (competencies, skills, leadership, procedures, know-how, etc.) and external (image, brands, alliances, customer satisfaction, etc.) stock of dynamically interrelated intangibles available to an organization, which allows the latter to transform a set of tangible, financial and human resources into a system capable of pursuing sustainable value creation"

The guidelines of the EU's Meritum Project (2002) divide IC into three categories: human capital, structural capital, and relational capital. Human capital is defined as the knowledge, skills and experience that employees take with them when they leave. Some of this knowledge is unique to the individual; some may be generic. Human capital refers to people's capabilities and the intangible value they are endowed with, namely knowledge and skills which strengthen the organization's capacity to make decisions and allocate resources. Human capital is one of the most important resources for business. They are labor intensive organizations and the effective management of the workforce is crucial for business performance. People play a fundamental role to realize the mission (Veltri and Bronzetti, 2015). Training and education are the most important investments in human capital. Business are made of people who are made of knowledge, skills, capabilities, problem solving abilities, personal traits, creativity and willpower, all principally emanating from education (Hudson, 1993; Bontis et al., 2000). The ability of business to achieve their objectives deeply depends on the knowledge, innovations, experiences, skills, willpower of corporate

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members from the top to lower levels (Bontis, 1999; Kong and Ramia, 2010). A high number of specialized employees guarantees more competences, stability and services of quality; moreover, the contribution of a collaborator increases over time, as result of learning process from experience if adequately integrated with specific investments for staff development (Bontis et al., 2000; Kong, 2010; Veltri and Bronzetti, 2015). Examples are innovation capacity, creativity, knowhow and previous experience, teamwork capacity, employee flexibility, tolerance for ambiguity, motivation, satisfaction, learning capacity, loyalty, formal training and education.

Relational capital is defined as all resources linked to the external relationships of the firm – with customers, suppliers or partners in research and development. It comprises that part of human and structural capital involved with the company's relations with stakeholders (investors, creditors, customers, suppliers), plus the perceptions that they hold about the company. Relational capital refers to the intangible resources capable of generating value connected with external relationships, such as those with customers, suppliers and research and development partners. Businesses are heavily involved in external relationships with government agencies, business corporations, different types of business, potential donors, employees, volunteers, customers and end users making their relational capital extensive. The strength and quality of relationships with external stakeholders foster the continuous flow of information among the network partners, providing opportunities of resource sharing while improving corporate performance (Ordóñez de Pablos, 2003; Kong, 2010). Additionally, web presence is essential for every business because it provides collaborative opportunities and information sharing, reaching and engaging existing and prospective partners (Greenberg and MacAulay, 2009). Examples of this are image, customer loyalty, customer satisfaction, links with suppliers, commercial power, negotiating capacity with financial entities and environmental activities.

Structural capital is defined as the knowledge that stays within the firm. It comprises organisational routines, procedures, systems, cultures and databases. Structural capital refers to the resources within the entity, comprising databases, organizational routines, procedures, mechanisms and structures of the organisation that support employees in their quest for optimum intellectual performance Structural capital is a supportive infrastructure for human resources and knowledge (Benevene et al., 2017). Numerous elements are relevant, such as innovative behavior, investment in networking activities, sustainability and quality certifications and the dissemination of corporate culture among workers, volunteers and board members. Examples are organizational flexibility, a documentation service, the existence of a knowledge centre, the general use of information technologies and organisational learning capacity. Some of them may be legally protected and become intellectual property rights, legally owned by the firm under separate title.

The IIRC Framework Section 2.15, defines intellectual capital as organisational, knowledge-based intangibles including (i) "intellectual property, such as patents, copyrights, software, rights and licences"; and (ii) "organizational capital such as tacit knowledge, systems, procedures and protocols". It is worth noting that the IIRC Framework considers human capital and social and relational capital as separate capitals, while IC studies adopt a different approach (Meritum Project). This classification does not comply with that provided by the IIRC Framework; however, whatever approach is preferred, IC is supposed to sustain the firm's strategies and the value-creation process.

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Previous studies claim that the definition of IC provided by the IIRC Framework substantially adheres to the definition of structural capital. Along this line of thought. argue that the definition of IC largely accepted by the literature (and based on the tripartite classification previously mentioned) tends to comprise at least three out of the six types of capital (intellectual, human, and social and relationship) mentioned in the IIRC Framework.

IC can be seen from three perspectives: the knowledge perspective (Roos and Roos, 1997), from which the whole IC process develops, whether through human or technological resources; the value perspective (Edvinsson and Malone, 1997; Stewart, 1997), in relation to which Dumay (2016) also redefines IC from the value creation perspective, adopting the concept of Stewart (1997), substituting the word “wealth” for “value,” and explaining that value is much more than money; and the intangible resources perspective (Brooking, 1996).

According to Choong, (2008), there are seven schools of thoughts on IC:

Skandia Navigator	Provide supplementary information to annual financial report; focus on nonfinancial measures covering five components: (1) financial; (2) customer; (3) process; (4) renewal and development; and (5) human
Intangible asset monitor	Provide strategic information of the firm concerning: (1) growth; (2) renewal; (3) efficiency;(4) stability; and (5) risk
Calculated intangible value	Provide strategic information of the firm concerning: (1) growth; (2) renewal; (3) efficiency; (4) stability; and (5) risk Calculates the excess return on tangible assets (ROA) in terms of: (1) human; (2) customer; and (3) structural IA
Balance scorecard	Sets of financial and nonfinancial measures to indicate four perspectives: (1) financials; (2) customers; (3) internal process; and (4) leaning and growth
Technology broker	Report using qualitative measures on four components: (1) market assets; (2) human asserts; (3) intellectual property assets; (4) infrastructure assets
Value Explorer	Provide supplementary report using calculated and allocating value to 5 types of intangibles: (1) assets and endowments; (2) skills and tacit knowledge; (3) collective values and norms; (4) technology and explicit knowledge; and (5) primary and management processes
Value Chain Scoreboard	A matrix of nonfinancial indicators arranged in three categories according to the cycle of development: discovery/learning, implementation, and commercialization

C. Measurement of IC

There are varieties of approaches to the measurement of IC. The first group is scorecard approach which aims to describe, but not always measure the value of, IC with respect to a range of both non-financial indicators and selected financial ratios in order to gauge specific intangible asset, and reports by means of integrated scorecards or graphs. The approach, exemplified by models such as the Skandia Navigator (Edvinsson and Malone, 1997) and the Intangible Asset Monitor (Sveiby, 1997).

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The second group is expense-investment approach (Goebel, 2015) that classes certain IC-related expenses, as reported in the income statement, as IC investments that generate an excess return on assets. Pulic (1998) develops a value added intellectual coefficient (VAIC) which is based on the traditional concept of the value added resulting from the sum of net income plus personnel expenses. However, the VAIC approach has been criticized by Goebel (2015) for two reasons. First, the VAIC approach considers human capital as an investment not a cost. Second, the VAIC approach relates all operating expenses to IC capital.

The third group constitutes an aggregate components approach which aims to estimate the value of specific individual IA, and then derives the total aggregate value of IC. However, this approach is difficult to implement in practice as quantitative information on individual IC components is frequently incomplete or unreliable. Moreover, it ignores the holistic effect of the synergistic interaction of IC elements on overall IC value (Mouritsen, 2009). The Market Valuation Model of Pantzalis and Park (2009) relates human capital, measured as the ratio of total firm employees to total industry employees, to market value. However, among other limitations, their model does not consider two critical components of human capital that is, investment in the training and education of employees. Further models based on direct estimates of individual IA include the following approaches: technology broker (Brooking, 1996); citation-weighted patents (Bontis, 1998); inclusive valuation methodology (McPherson, 1998); The value explorer (Andriessen and Tiessen, 2000); and total value creation (Andersen and McLean, 2000).

The last group is Market Capitalization Approach (MCA), holistic approach which takes effects of interactions between IC components which typically generate an overall value greater than the aggregate value of the individual estimates (Van der Meer-Kooistra and Zijlstra, 2001). This approach measures the value of a company's IC as the difference between the company's market capitalization and its book value. Thus, a positive IC value is generated by a firm where its Market to Book (MTB) ratio exceeds unity (Stewart, 1997; Luthy, 1998). The excess of market capitalization over book value, generated by information sets far wider than the accounting system, measures that "covered" portion of IC not currently represented in reported assets or expenses, at the least to the extent that can be incorporated in market expectations.

V. CONCLUSION

This paper provide theoretical frameworks that can be used to identify variables for future study on IR, value creation and IC such as relationship IR and firm performance(value creation). Reporting of non-financial information has been found to be value-relevant, reducing the cost of equity capital and improving analyst forecast accuracy (de Villiers and Marques, 2016; Dhaliwal et al., 2011; Dhaliwal et al., 2012). Corporate reporting should provide insights into how a company views itself and its role in society, communicating company's performance both good and bad and indicating commitments to improve future performance and establish accountability for meeting objectives.

Integrated reporting (IR) in corporate communication is a process that results in communication, most visibly a periodic "integrated report", about value creation over time. An integrated report is a concise communication about how an organization's strategy, governance, performance and prospects lead to the creation of value over the short, medium and long term.

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Managers should assess what value is created over different time horizons and to whom the value has been created for. Sustainable value creation is unlikely to be achieved through the maximization of a single capital; thereby, organizations need to find an optimal balance and adjust their business model and strategies accordingly.

The value creation can be visualized through capitals; financial, manufactured, intellectual, human, social and relationship and natural (IIRC,2013). This paper discussed only from the perspective of IC only. Intellectual capital is the intangible value of a business, covering its people (human capital), the value relating to its relationships (relational capital), and everything that is left when the employees go home (structural capital), of which intellectual property (IP) is but one component. It is the sum of everything everybody in a company knows that gives it a competitive edge. Although IC itself has been found to have a positive impact on market value and financial performance (Abdolmohammadi, 2005; Chen et al., 2005). IC disclosures have also been found to be of a low quality, often providing qualitative rather than quantitative information.

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