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The Impact of Integrated Reporting on Firm Value and Performance: Evidence from Egypt

Abstract

The dynamic and increasing evolution of economic conditions emphasizes the potential deficiencies of historical information of listed companies because it cannot satisfy investors', diversified information needs along with economic development. In some cases, historical information is unable to provide stakeholders with sufficient insight regarding critical success factors, opportunities, risks and management plans more integrated perspective.

A new reporting framework called integrated reporting had been raised during the last decade. The United States Securities and Exchange Commission (SEC) initiated the concept of the integrated reporting in 1970s. It calls for a single report that integrate the financial and the non-financial information. The new reporting framework tries to improve the ability of the investors for assessing the future prospects of the firm and to remedy the shortcomings of the traditional reporting model of accounting. the International Integrated Reporting Council (IIRC) is the main body behind the spread of the integrated reporting idea. The council issued a framework that included the main components of the integrated report components and requirements of implementation. The components of the integrated report included six forms of capital (natural capital, social and relationship, human, intellectual, manufactures and financial) that help in creating a future value for the firm using the business model and organization's strategy.

The purpose of this paper is to identify key challenges, opportunities, strengths and weaknesses to be experienced by companies listed in the stock exchange market (EGX30) within the integrated reporting (IR) implementation process. The research also, test the link between the level of compliance to IR and the firm performance and value. The researcher used the profitability (ROE) and leverage level (Debt

ratio) as proxies for firm performance and the capitalized market value for the firm value. In addition, the researcher constructed an index for the IR implementation level through scanning the IIRC framework issued by the International Integrated Reporting Council (IIRC), along with the integrated reports issued by the international companies in 2016 and 2017 in accordance to the requirements of the council.

The study used data from the companies listed in EGX30 index in the Egyptian stock exchange market through the period 2012 to 2017. The data collected through the annual reports of the companies were analyzed through group of statistical analysis like; Descriptive analysis, Pearson correlation, regression analysis. The findings of the research were supporting the positive correlation between the level of IR compliance and firm performance and value and the leverage level of the companies.

The results suggest that the implementation of the integrated reporting will enhance the companies' performance and value in the Egyptian stock exchange market. Up to the knowledge of the researcher the mentioned variables have not been investigated in the Egyptian market. The research provided insights into the future of implementing the (IR) reporting which can be used as a base for further researches in Egypt.

Keywords: Integrated reporting, EGX30, Egypt, Firm value, Leverage, Profitability

Research Objectives

1. To measure the effect of the level of (IR) compliance on the profitability of firms (ROE: Return on equity) across the Egyptian stock exchange market.
2. To pinpoint the effect of the level of (IR) compliance on the Leverage level of the firms (Debt ratio) across the Egyptian stock exchange market.
3. To test the relation between the level of (IR) compliance and the capitalized market value of the firms (Market value) across Egyptian stock exchange market.

Research Methodology

To achieve the main objectives of the research, data of the companies listed in EGX30 index in the Egyptian exchange market for the period 2012-2017 will be investigated with a total number of observations equal 180. The researcher will conduct a scan of the ready to use literature regarding the research variables, and the content analysis will be used in order to construct the IR index and the secondary data that requires further processing from the companies' annual reports will be used to calculate the values of the other variables. The researcher constructed an index that included 42 items divided over seven main components (Organizational overview, Opportunities and risks, Strategy and resource allocation, Business model, Governance, Performance and Future outlook) that had been derived from past literature and the bulletins of the professional companies like Big 4 auditing firms. Then the researcher will conduct a statistical analysis using SPSS package in order to test the hypotheses of the research through the use of the descriptive analysis, Pearson correlation analysis, and regression analysis.

Literature Review

Integrated Reporting Concepts

Corporate social responsibility (CSR) is "the commitment and contribution of business organizations to sustainable development, stakeholder issues/concerns, improvement and enhancement of societal conditions" (Jamali et al. 2010). CSR is practices and policies to be integrated with operations of business and decision making process that lead to positive impacts on the society by emphasizing the commitment of companies to improve the sustainable development, stakeholder interests and enhance the societal conditions (Eldeeb and Sobhy, 2017).

Vesty, Ren, Ji,(2018) stated that unlike the previous critiques of three-layered bottom line and CSR (Corporate Social Responsibility) reporting, the theoretical literature placed the contradictory perspectives within the integrated reporting concept (Dumay et al., 2017; Milne and Gray, 2013; Chaidali and Jones, 2017; Humphrey et al., 2014, 2017; Adams and Simnett, 2011). This is unforeseen, as ordi-

nary discussions are constructed on whether or not accounting is “proper” to a detailed worldview of information that are necessary for the stakeholders (Adams, 2017; Milne and Gray, 2013). Debates are grown with complete explanations and applications that connect experts to their competent objects of providing information to meet the various needs of the investors and creditors (Boltanski and Thevenot, 2006).

Hsiao and Kelly (2018); McNally, Cerbone, Maroun (2017); IIRC (2013) stated that integrated reporting should be an effective way of communication about how organization’s strategy, governance, prospects and performance, in the context of its external environment, can help in initiating the formation of the firm value over the short, medium and long term horizon. This can enhance the quality of existing information provided to capital providers and can help in delivering a holistic view of the organizational value creation process. IIRC (2013) claimed that financial and non-financial information should not be provided in separation. Instead, this information should be combined in a single report which reflects a cohesive approach for managing diverse types of capital to create an acceptable return for capital providers. An organization must improve its identifiable business model and strategy, permitting them to stimulate changes in systems, procedures and processes, which contribute to enrich the organization’s sustainability. This requires a brief clarification of the connection between the diverse factors influencing how the organization creates value including environmental, social and economic factors, which give rise to consequences on the sustainability of the business model (Raemaekers et al., 2016; Stubbs and Higgins, 2014).

Abeysekera, (2013) pointed that although the Corporations Acts and Accounting Standards mainly attempting to direct the attention of stockholders and creditors to the financial results of the organization, most of these investors are interested in the non-financial information. The management practices are caring to create voluntary disclosures in order to encounter the needs of investors (Gaa, 2010). These voluntary disclosures are a trade-off among the needs for disclosing financial information to perform properly in compliance to the standards and with investors needs for additional non-financial information. This trade-off is against the desire of the management for withholding

information to preserve confidentiality for organizational existence and development.

EY (2014) explained that an organization could face the choice among defending its financial capital in the short term or snowballing its profit potential in the longer future. These decisions, if essential, should be set out in a report that is called the integrated report and to be defined in the organization's value creation goals. This report will generate a value-added contribution beyond the value included in the traditional annual financial statements and it will help in the formation of intangible value that can influence the organization's actions on society as a whole. It also, helps in comprising an explanation of how this can stimulate long-term shareholder value creation. Integrated reporting is a better way of articulating the wider array of processes that contribute to long-term value creation and to the role organizations perform in society. In addition, it can be considered as the scheme that value is progressively formed through issuing additional information beside the financial performance information, such as the social reputation, human capital skills, environment and others.

Villiers, (2014); Kiliç, and Kuzey (2018); Atkins and Maroun, (2015) mentioned that existing reporting methods are extensively outdated for being too long and concentrating only on the financial parts of business performance. Consequently, a necessity lead to the existent of additional reports, that demonstrating the main financial and non-financial measurers affecting the performance and sustainability of a business. Garcia-Sánchez and Noguera-Gámez, (2017); Eccles and Saltzman, (2011), Gianfelici et al., (2016) stated that non-financial information disclosure is commonly unregulated and not homogeneous, because of the absence of reporting criteria and the absenteeism of guiding legislation. IR has been developed as a stage on the way to an improved process of reporting, which shall include the needs for a speedily shifting from traditional ways of reporting (Steyn, 2014).

It is hard for integrated reports to reflect the value creation procedure completely as the level of comparable and quantitative information is restricted by deficiencies in current accounting mechanisms (Adams, 2015). Moreover, there are costs to disclose information and managers are probable to disclose the more expensive information. Voluntary disclosures could turn out to be a tactical choice where the

board of directors articulates rules and screens legislative actions for their disclosure, to justify their strategies that produce the organizational actions. Abeysekera, (2008); Westley and Mintzberg, (1989) stated that organizational activities are formed by the organizational contented (ex. services, ideals, products, and markets) and organizational framework (ex. the environment in which the organization conducts its affairs and organizational characteristics), the suitability of voluntary disclosure turn out to be essential for decisions taken by the determinations of the board of directors actions. The strategic rational of the board, organizational intent, and the operational actions commenced by the senior management, disclosing actions signify the business to investors and to be considered as a keystone in merging accountability and reporting transparency of activities of management, which are of monetary and non-monetary nature (Abeysekera, 2008).

Financial reporting of organizations is instructed by accounting principles and is a lawful obligation in several countries to notify and protect creditors, investors, and shareholders. Most countries nowadays practice (IFRS) international financial reporting standards in a complete or partial way, while others are using nationally generated accounting standards which makes the process of transferring to the complete integrated reporting more difficult (Abeysekera, 2013).

In 1999, PwC introduced the Value Reporting Framework, which came to be a stimulus for the debate that has changed later to the concept of integrated reporting. The driver behind Integrated reporting concept was the focus on value formation crossways resources or capitals (such as manufactured, financial, social, human, environmental and intellectual). It was also, been suggested as a tool that can align organization strategies with business particular long-term vision for self-sustaining economies (PwC, 2015).

PwC, (2015) clarified the IR as the mean by which the wider value drivers of a corporate are managed internally and then interconnected to investors and other stakeholders. It comprises a broadening aspect than the traditional models, which concerned mostly by financial resources. It also, includes a more associated ways, i.e. understanding how the other capitals a business uses (for example, natural, human, social and relationship) cooperate and affect the financials and each other. IR needs a forward-looking insight where all these intercon-

nected features are considered at a strategic level. Greatly valuable work has been done by institutions such as the International Integrated Reporting Council (IIRC), the Global Reporting Initiative (GRI) and the Sustainability Accounting Standards Board (SASB).

IR includes two matters – the integrated thinking (which is sometimes referred to as internal business management) and the external opportunities (which is sometimes referred to as external periodic report). Corporate reporting is of the greatest prominence to investors but the long-term investors are already well known to look further than the financial facts and figures only. IR is the logical and necessary next step in corporate reporting, as environmental, governance and social information already is essential for measuring the performance and prospects of companies, and for the significant stewardship part that investors both want and need to use. In a recent PwC survey, 75% of CEOs mentioned that determining and recording the total effect of their company's actions across environmental, social, economic dimensions and fiscal establishments are important to the long-standing achievement of their business (PwC, 2015).

EY (2014) concluded that IR is an administration and communication instrument to understand and measure how businesses create value nowadays and in the upcoming periods. The objective is not to deliver more information only, but to deliver an enhanced information. It is the information that stockholders are progressively seeking to enhance the usefulness of their decisions.

Objectives of integrated reporting

The strategic objectives of the (IR) are to tolerate and improve the business, and to cultivate the ultimate benefit of using the financial and the non-financial disclosure items in the companies integrated reports. The continuing sustainability of the (IR) is thus a key emphasis, which will be realized through recognizing strengths and weaknesses and then justifying actions to decrease the influence of the threats and to take benefit of the opportunities. Optimization is an important concept to enhance the ability of the management to deal with a portfolio of resources. On the other hand, the investment structure, cost control, information and data management can be targeted by management to enhance the decision-making process. The correlation and communi-

cation with the management that run the businesses resources are crucial to the performance evaluation for each of the company's resources. The IR part is to bring into line with and improve these competencies through supporting the decisions interrelated to capital allocation and other resources management decisions. (Hospitality Property Fund, 2007; Adams and McNicholas, 2007; Ahmed Haji and Anifowose, 2017).

In the same thought Hospitality Property Fund (2007) pinpointed the goal of IR at any business in general and in hospitality industry in particular as a way of clarification of the business models and tactics, that present a convincing investment case and value proposition and to move in the direction of concise and attentive business reporting. PwC's (2012) demonstrated various benefits of IR, such as giving business a more complete interpretation of information relevant to their tactic, business model and aptitude to generate and undergo value in the long, medium and short term.

PwC (2012); and IIRC (2016) also, identified the roadmap for understanding the process of transferring into integrated reporting, as it is not a simple process. It needs an understanding of the company's tactics and strategies by recognizing key stakeholders and their exact needs, and applying procedures to acquire the information needed for a holistic methodology of managing the business. Rationalized reporting through more reuse of reporting essentials, transparency and alliance on reporting, and methodical concepts used by both external and internal analysts where additional appropriate and understandable information are accessible for organization and stakeholders to permit better decision-making and well allocation of investment and other resources.

Peršić&Halmi (2017), Global Reporting Initiative (GRI G4), (2015) demonstrated that qualitative characteristics of information (completeness, consistency, reliability, understandability, comparability) are considered as a basis for measuring the influence of business's aptitude to generate value over time. In that context, IR is concentrating on representing a compliance with legitimate and other necessities, predominantly with the provision of GRI G4 outline, where emphasis is on protection and wise use of assets, pollution self-consciousness,

decrease of waste, enhancement of energy effectiveness, as well as on consumption of energy-saving procedures.

Lai, Melloni, Stacchezzini, (2018); IIRC (2013a); Busco et al., (2013); Adams, (2015) elaborated that IR benefits primarily aiming on the accountability for extensive bases of financial, nonfinancial resources (ex. natural, manufactured, intellectual, human, social, relationship). In this sense, IR might assume a capability and readiness to get on a discussion with a wide base of participants where the report might bring about mixing accountability to a wide range of stakeholders, including but not limited to shareholders. However, there is an argument that most of the papers that highlighted the companies' sustainability and accountability to a wider group of stakeholders, are applying the most recent International Integrated Reporting framework (IIRF) that detects value creation for financial capital providers through an efficient IR preparation process (Flower, 2015; de Villiers et al., 2016; Rowbottom and Locke, 2016 and Thomson et al., 2014).

Key performance indicators (KPIs) and organization Strategy

Key performance indicators (KPIs) provide different amounts of information when compared to the performance measure benchmarks. The information theory relying on information measures that are examined to find out if they are valuable for determining a practical subdivision of KPIs that will help in assessing the sustainable information usefulness for users with minimum information loss (Talluri and Sarkis, 2002).

KPIs measure financial and non-financial performance against targets for sake of long-term value creation objectives. They can also, specify what the business's outcomes are in terms of tangible and intangible value in addition to value for the community. KPIs can be used to measure performance and outcomes resulted from the use of tangible and intangible assets besides the performance of the capitals the business possesses. They are related to the business's critical value drivers and help in tracking the organization's performance in the long, medium and short term horizon. Generating valid KPIs allow businesses to recognize how they can minimize undesirable externalities and make best use of positive ones. Ultimately, this will support

the performance of their intangible assets and by default enhancing the value of the firm. As a result of that, it is essential to demonstrate how measurement indicators (e.g., energy efficiency, media coverage, employee turnover) affects the business's tangible and intangible assets (such as brand and customer relationships). Why? For the reason that it directly influences shareholder value, for example, the use of KPIs that are related to waste reduction generated in manufacturing. The decrease of waste may indirectly help in the creation of external value through improving environmental performance. The development could result in an enhanced brand image, this in turn increases customer satisfaction and, by default, customer retentions (an intangible asset) (EY, 2014). This is where the author believes that KPIs could be valuable furthermore to be a narrative portion of the IR.

Oshika, Saka (2017) pinpointed that major firms presently issuing IR reports are applying the Global Reporting Initiative's (GRI) Sustainability Reporting Guidelines because the guidelines are offering a supporting KPIs to be used by the firms to evaluate their progress. With respect to KPIs, numerous studies explored social and environmental KPIs and their efficacy in improving the firm performance and as a result the firm value (Adams and McNicholas, 2007; Burritt and Saka, 2006; Saka and Oshika, 2014; Bebbington et al., 2009). Most of these papers did not provide any conclusive evidence that KPIs are essentially valuable for assessing a business's sustainability.

Furthermore, the perception of sustainability is understood in numerous and diverse ways in a business environment, as there is a deficiency of definition about the connection between the concept of sustainability and accounting (Lankoski, 2016; Montiel and Delgado-Ceballos, 2014; Çaliskan, 2014). Peršic & Halimi (2017) mentioned that strategic attention is obviously pointed out in any Chairman and CEO's preliminary communications through positioning the Business's upcoming strategies than can be imagined through strategic objectives and precise strategic initiatives that can be contingent primarily on the business's whole strategy and its integrated report (Valamar, 2016). This would be more suitable to disclose independently in the integrated report, whereas an appropriate links to the KPIs should be specified in the integrated report itself.

EY (2014) stated that strategy preparation must designate the procedures and tools assigned for the formation of value for investors and other stakeholders, specially, employees' customers, suppliers, and society all together. The value generated for the community is the result of the creation of negative and positive externalities. When the market is conscious of the externalities created, the later can similarly interpret into a decrease or increase of a business's value. Strategy should obviously set out the degree of difference for the value proposition of the society as a whole. The strategy must remark enquiries for instance: What does the business do to generate value for its clients, the providers of financial capital and other stakeholders? What outcomes does the business struggling for? What capitals does the business depend on? How will the business position itself in the value chain and in its operational markets?

The strategy must mirror and articulate an equilibrium between short-term financial performance, and the sustainable formation of value in the medium and long term. It is significant to differentiate the time horizons framing decisions concerning the allocation or consumption of the capitals. A business's strategy must reflect the choices required when it comes to consuming resources. Repeatedly, the use of one capital can reduce its value yet drive a growth in the value of other capitals over time. The strategy must pinpoint the management procedures and arrangements to organize and use all the resources (including external resources) within the business's reach as proficiently as possible (EY, 2014).

What is emerging from (IR) experimentation?

PwC, (2015) stated that numerous number of firms are discovering that an ultimate alteration in reporting needs are in the way by emphasizing the inclusion of more information. Users need a clear thoughtful of "all the building blocks" of the corporate value creation procedures. How does the output of the investor discussion bond to tactic and hazard? There is increasing indication to propose a constructive linkage among the reporting and management of pre-financial elements (ex. governance, social, and environmental issues) and financial / operational performance. Simultaneously, business boards are progressively going under stress to clarify their companies reporting strategy through emphasizing on the way of enhancing sustainability

of the companies and on the way they are carrying out these alongside their longer-term objectives.

IR includes an original method of “integrated thinking”, where organization proceeds strategic decisions grounded on a comprehensive array of performance information. It is recommended that IR could help companies attain an enhanced discussion with stakeholders and other investors, and to upkeep the development of additional constant, flourishing financial prudence. Traditional commercial reporting models have failed to adjust to an undefined economical condition and account for the improvement of the intangible assets. Traditional metrics for determining value and economic development no longer deliver a whole image for this but the IR system is fulfilling the needs and wants of the investors (EY, 2014).

EY (2014) argued that over the previous forty years, firms have been disclosing a growing quantity of information to satisfy the demands of investors. This was obvious through presenting additional information to providers of capital who progressively demanding more information to understand the whole picture reflected by financial statements and sustainability reports. Value is destroyed or created by a business activities and strategies in dealing with the different resources of the firm. The capitals store value and, although changes in these stores are not reflected in traditional business reports, they have the prospective to produce upcoming cash flows for the firm that result in fluctuations in the value of the firm that can be interpreted into improved tangible and intangible asset valuations.

Research performed by ACCA and Eurosif (2013) concluded that shareholders think that a linkage is missing between current reporting, risk and firm tactics, and insufficient information is provided to measure financial strength of firms within the current changing environment. Present non-financial reporting is not adequately appropriate, and non-financial information have to be combined with financial information in order to remedy this shortage. Qualitative course of action is significant to measure financial materiality, but quantitative KPIs are observed as crucial for this process. Accountability must be fragment of non-financial reporting, either through innovative board oversight instruments, third-party assertion and/or stakeholder agreement at yearly general meetings.

EY (2014) discussed the link among intangible value, financial performance and externalities as integrated reports facilitate firms to articulate their distinctive value creation floors in order to be able of assessing the intangible value and the externalities they create because of their corporate reporting. Firms similarly must to consider to what amount the externalities created might also influence intangible value. Additionally, businesses must be able to designate the ability of both intangible properties and externalities to create upcoming cash flows. The procedure of communication can affect market value and can convey it nearer to the intrinsic benefit of the firm.

EY (2014) also explained the gap among market value, intrinsic value and net book value by conveying all asset choices that come by a comprehensive study of financial and non-financial information focusing on: what monetary cost will an asset create or terminate? In some cases, a firm's market capitalization could be a worthy measure for evaluating the effect of these values on the reliability of the information reported by the company. Nevertheless, the information presently accessible to stakeholders does not provide the complete picture which could produce a gap between book value, market capitalization and intrinsic value. The gap between market value and book value is clarified by the fact that current traditional disclosure system admits the presence of unrecognized intangible resources and externalities. In a good and completely obvious marketplace somewhere, contributors had right to use the equivalent information, intrinsic value that would match with its marketplace capitalization. IR aids to decrease the gap among intrinsic and marketplace benefits by recognizing intangible properties and externalities that help in assessing their monetary costs and benefits.

Practical guidance for integrated reporting implementation

PwC, (2015) indicated that creating the jump from old-style annual financial reports to IR reports is inspiring as the amount of information to be included will assist managers concentrate their strategies primarily in a way that generate value for shareholders, through screening the value creation procedures, and eventually reporting their performance externally.

The applied directions for the IR reporting have to be grounded on a roadmap to improve how to measure and achieve the wider value drivers that create the base of integrated reporting to generate benefits for all stakeholders. Some businesses have a qualitative considerations of how benefits are created for its shareholders as the value formation process is subject to 7 associated main streams: (1) investors, (2) their key messages, (3) hazard, (4) tactic, (5) benefit drivers (what actions influence the attainment of strategic goals), (6) performance and (7) effect (PwC, 2015).

For example, Hospitality Property Fund (2007) mentioned that integrated annual report has been organized to offer shareholders with a complete and clear vision of the strategic business model and is directed to all key investors. Further comprehensive information is likewise enclosed in the additional reporting system that includes annual financial statements, results presentations: A database of the outcomes exhibitions to specialists and stakeholders, reviewed condensed consolidated financial results: A brief indication of the firm's yearly performance and the Notice of annual general meeting: A concise overview of the firm's yearly performance.

Sun International limited Inc. integrated report (2017) indicated that for leveraging the substantial investments in the organizations, it is crucial that the business evaluate its procedures to enhance and increase efficacy as this will not only aid the organization to enclose and decrease its expenses but will similarly increases the quality of its information. So, it can create superior and additional up-to-date decisions, which will lead to a better client involvement and performance evaluation.

Sustainable development needs an equilibrium among societal developments, environmental conservation and profitable growth, which is the basis of the innovative value creation idea associated with the IR idea. This equilibrium is significant for the reason that firms are the point of intersection for numerous assets or capitals that act with each other to formulate a competitive tactic and exceptional value proposition of the firm. This "multiple capitals approach" is the basis of the financial scheme and improvement model in the new economy (EY, 2014).

PwC (2012) indicated that IR delivers all needed information for interior needs whereas simultaneously present applicable information to stockholders and other stakeholders. This information is a pool of documents from which the firm is capable to choose the appropriate evidence for the particular determination of value (e.g., external and internal reporting, non-financial and financial reporting). IR is a “complete discipline”, which is created upon adding all types of document sets that containing financial and non-financial information that must be accessible on a systematic and consistent base. As soon as, IR is completely applied, the IR will mirror the interior practices, material considerations and shareholder engagement activities in the final report. In parallel to setting the base for IR, the structure of the report and the complete communication model could be improved in several stages. The roadmap below summaries the stages to be taken to reach for integrated reporting system.

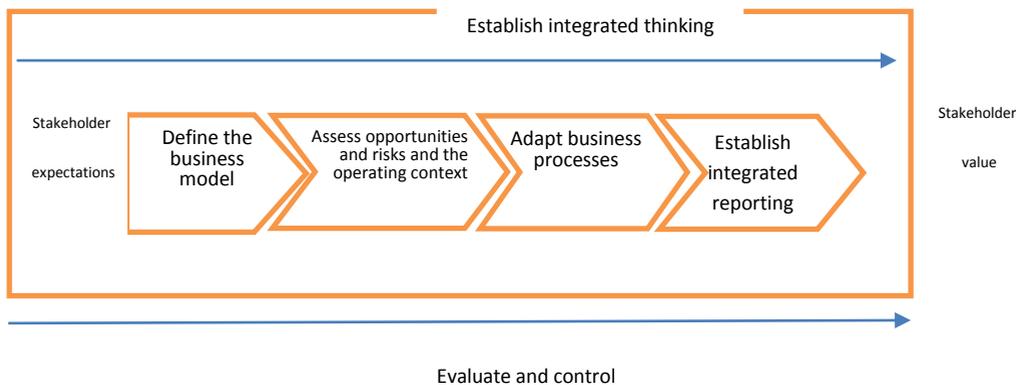


Figure (1): Steps on the road to integrated reporting

Source: PwC report (2015)

Content elements of integrated reporting framework

Cheng et al., (2014); Kiliç, Kuzey (2018) stated that the IR structure is covering “content fundamentals”, “controlling principles” and “major concepts”. The formulation and arrangement of IR system is strengthened by 7 managerial ideologies: (1) connectivity of information; (2) strategic concentration and upcoming alignment; (3) materiality; (4) stakeholder engagements; (5) conciseness; (6) uniformity and comparability; and (7) dependability and comprehensiveness

(IIRC, 2013). IR would include content fundamentals, including for instance the structure of the organization along with the external surroundings, controlling system, business model, threat and chances, tactics, performance, position and foundation of preparation and demonstration of the reporting system (IIRC, 2013).

PwC's (2012) indicated that IR system should deliver a complete, brief and well-adjusted image of a firm's whole performance that aids stockholders and other stakeholders to understand and evaluate its capability to generate and sustain value in the long, medium and short term range. As a result, formulating and organizing IR means linking sustainability information with financial reporting information through cross references for most of the firms where IR system could be the elementary reporting tool that contains all essential financial and non-financial information (as additional reporting is mandatory by law).

The business model in the integrated report

EY (2014) stated that the business model is the tool that describes and accomplishes an organization's strategy and draws out the procedure by which a firm generates maintainable long-term value. Business model must consider a firm's "value proposition, business strategy and long-term feasibility" in order to increase the entity's future flexibility. The business model is created on the concept of various resources which states that, in the new economy, an organization can only form and endure value if it achieves the complete range of input capitals in a proficient and dependable way. The capitals of the firm can be used to form value that contain "real items such as financial capital and industrial capital; intangible features such as connections with the society, human capital and intellectual capital; and other inputs or resources such as ecosystem services derived from natural capital; firms can draw on these capitals for free or in exchange for payment" within its system.

The business model should detect the vital inputs that add to value-creation; it should similarly display how to manage its components, and the crucial activities that add value to the organization and the possible result in relations to the value creation over the long, medium and short term horizon. Inside the business model, value-creation includes the tangible and intangible products and services shaped by the firm in addition to the external elements, which decrease or increase

the worth of the assets used and affected by these external factors. Create or destruct the value take place over a decrease or increase in the value of the firm's intangible and tangible assets and in the formation of negative or positive influences for the society (externalities) that can, sequentially, affect the business's value (EY, 2014).

Peršić & Halmi (2017) pinpointed to the firm's business model in hotels that is built on the idea of continuous controlling which emphasize on the sustainability and societal accountability to create innovative value, in long-term decision-making and in everyday practices. Distinctive importance was raised for managing customer satisfaction for sake of developing and maintaining the hotel properties, improving operating management simultaneously, maintaining the quality of service provided and aiming to secure an extraordinary ROI. A specific cooperation with the destination management at the local, regional and national level, targeting the management to be a dynamic partner in the end-point of value chain. This can be achieved by attaining destinations' sustainability attached to the strategic objectives of the organization, and consequently becoming a leading light of the improvement of the industry as a whole in the future. Business model is one of the IR components that is organized by engaging the information revealed in sustainability report by reflecting the relations among forms of assets on one side and their allocation onto the input's other sides (manufactured, financial, intellectual, human, relationships and social capital). In harmony with the firm's specific business actions, firm general idea and governance, taking into account the necessities of the business environment, ranging from the local level (destination in which firm operate) to the firm's circumstances in the travel marketplace. The business model also, comprises the outline for discovering new chances concerning those that have previously been understood in a way to measure the attained situation in the domestic business environment.

Macias, Farfan-Lievano, (2017) cited that IR is aimed to keep firms aligned with their goals through generating value in the long, medium and short term horizon as the firm's capability to generate value is reflected in its strategic plan. The IR is neither a business description nor a combination of diverse reports (internal and external, qualitative and quantitative). IR is considered a managerial instrument that has the capability to improve value of business process by expanding its

long-term value-creation. One of the values added for the usage of the IIRC's framework that IR structure is to present the thought of integrated thinking to the firm that implement it. Integrated thinking discusses the relations between diverse types of resources, decision-making and planning to generate value, which needs a comprehensive level of linkage among functions and information, publicly, to line up firms towards attaining their tactical objective. IR permits a firm to incorporate and align the isolated constituents of the firm into a business model that is focusing on the value-creation.

The extended model of value creation needs attention for numerous forms of investment that can affect the process itself as these forms of investments (inputs) are value stores that aid as the base for a firm's value-creation process. Its significance is built on the quality, availability and affordability of the information that can affect the capability of generating value over time and its long-term viability of the firm's business model. The forms of investments reflected in the outline of the IRs are as follows: industrial, financial, social and relationship, intellectual, human and natural. Industrial capital contains supplies, merchandises or infrastructure organized by the firm. Financial capital denotes the firm's bases of resources, Social and relational capital refers to the relations between the firm and its external stakeholders; it comprises the efficiency of the consumer satisfaction, intergovernmental relationships, societal acceptance, supply chain and competitors' relationships, intellectual capital is referring to the intangible resources possessed by the firm that aid to assess the competitive advantage of the organization, human capital is referring to the competences, awareness, talents and capabilities of the firm's personnel and executives, which perform as drivers of cost-effective progress and invention where finally, natural capital refers to the natural capitals or "ecosystem services" used or affected by the business (Macias, Farfan-Lievano, 2017).

As per the previous presentation, the business model is understood in this outline as the procedure by which a firm look for creating and preserve value in the long, medium and short term horizon. It is an arrangement that is consist of inputs, actions, merchandises and outcomes selected by the firm. The inputs are the diverse types of investments, and the actions that convert those inputs to outcomes of

business such as tangible and intangible products, surplus and further by-products. These outcomes are external and internal concerns of assets management at the business level or societal level while the main emphasis is value-creation.

Stakeholder Engagement Approach

Oshika, Saka (2017) discussed that IR goals is to clarify in what way a firm can generate value over time. Value-creation involves not only the internal organizational efforts but also the relationship with its stakeholders. In this respect, IR must be responsible for the monitoring the nature and quality of a firm's relations with its important stakeholders, by explaining in what way and to what degree the firm comprehends and taking into consideration the needs of stakeholder (IIRC, 2013; Parrot and Tierney, 2012).

Sun International Limited Inc. integrated report (2017) discussed the relation between the social capital and its direct influence on the financial capital, as it impacts whether customers choose to turn out to be a loyal consumer; whether dealers want to be suppliers; whether government believes that the organization is complying with laws and regulations and whether company is keen to return to the society and driving financial growth. Attaining the 5 tactical goals depends on the ability to comprise with the answer back to the stakeholders. The numerous approaches of engagement contain face-to-face informal and formal meetings, outcomes demonstrations and the annual general assembly. The firm must also, engage over integrated marketing and communication efforts such as public relations, electronic media, advertising, billboards, roadshows and newsletters along with the engagement procedures of the stakeholder. Organizations must yearly assess their stakeholder feedback as the firm must recognize any material issues that may be existent and in need for solution as a way of shaping a healthier understanding of their stakeholders.

Peršic & Halmi (2017) introduced an example where Stakeholder might request to submit their observations and recommendations for the IR report offered on the organization's website, and using the capability of communications over the e-mail address, subsequent to the evidence that "continuous discussion with stakeholders is a significant amount of the business social responsibility efforts". The preliminary

point here is that the determination of firm's actions is grounded on the bond with stakeholders by using investigations or customer opinion surveys, by rising consciousness on the environmental topics, by participation in charity occasions and by arranging newsletters.

Another example from the hospitality industry presented by Peršić & Halimi (2017) as they stated that engagement to stakeholders is the initial point as it is grounded on the business's rules and regulations, which present the obligation to be the market-leader in terms of guest and user satisfaction, service quality. Concerning the interests of staffs, organization and local society, environmental conservation and capital management are by implementing a great level of service quality and complying to the philosophies of sustainable development. The IR must deliver information interrelated to the attainment of specific and general objectives linked to safety, quality, environment and energy, labor law compliance and caring for employees and their training, interests and protection of children and support for the local community, which will be offered over the value chain and firm's business model.

Integrated reporting as a cycle of continuous improvement

PwC, (2015) introduced the process of embedding integrated reporting in any organization as an iterative process. Refinements and adjustments should be made during the process. It also has a circular, ongoing nature: it begins with stakeholder dialogue and ends with organizational annual reporting – which itself should stimulate further stakeholder dialogue. To implement integrated reporting, businesses must develop processes for listening to investors and other stakeholders. This helps management to gain insights into material issues and to understand where value can be created. This outside-in perspective aids management in developing a more holistic view of their business and its operating context. A growing number of organizations already understand the value of a more direct dialogue with their stakeholders and are taking steps to achieve it. In this way, they also gain greater understanding of how external stakeholders perceive the impact of their feedback on the business in both financial and non-financial wise.

Blacksun (2014) argued that companies that have already started on the IR journey demonstrated a better understanding of business opportunities and risks by (65%), improvements in decision-making by (79%) and more collaborative thinking about targets and goals by the board and strategy departments by (78%) over the other companies that did not started.

Sun International Limited Inc. integrated report (2017) indicated that Efficiency and optimization of the (IR) processes to be considered as a part of getting back to basics, where a lot of efforts are into optimizing the processes through increasing discipline, driving efficiencies and integrating key systems. This includes managing a human capital, and improve advanced scheduling workforce management and to optimize staffing and reduce overtime. A new-shared services center for all firm's properties was introduced to streamline support services (finance and payroll), increase efficiencies and accuracies, and lower transaction costs.

Challenges to implement integrated reporting

Toit, van Zyl and Gina Schütte, (2017) argued that a common dilemma facing companies is how much information they should disclose in their annual integrated report. Stakeholders prefer full disclosure, but this is not always possible or advisable. Thus, organizations are required to provide balanced information that eliminates the possibility of poor decisions by the users (Kiyanga, 2014). Another important consideration is the fact that the costs of reporting may outweigh the benefits which include losses resulting from the cost of disclosing key information to competitors (Belkaoui, 2004; Ho and Wong, 2001).

An organization, which implements a cohesive managerial business philosophy, manages non-financial and financial assets efficiently, improves its operational activities in a way that allows it to outperform its competitors (de Villiers and Marques, 2016; Churet and Eccles, 2014; Eccles and Krzus, 2010). A comprehensive methodology to manage the business also, permits the firm to address the rational needs of investors and guarantee that the firm's policy, business model and associated results are associated with public beliefs, which result in legality and long-term sustainability (King committee on corporate governance, 2016; O'Donovan, 2002).

To satisfy investors' prospects, a firm must consider accountability to ensure firm performance, containing the boosting of investor benefits and mitigation of undesirable corporate outcomes (King Committee on Corporate Governance, 2016). A firm must take steps to guarantee the sustainability of its business model in the long, medium and short term horizon and to deliver integrated report with high quality, which provide a strong explanation of its sustainability performance (Atkins et al., 2016; Alrazi et al., 2015; Annandale et al., 2004). From the researcher point of view this requires a proactive practice to use integrated management approach and integrated reporting methodology by management to satisfy the needs of the primary users of the firm's reports.

In this regard, the means used by business to achieve the benefits of stakeholders should guarantee its own persistence and achievement as it is characterized by how it magnifies value-added amongst all stakeholders. Value-added has the prospective to assist as a concrete and operative reporting tool for integrated reporting (Haller and van Staden, 2014). Nevertheless, there is no indication examining the correlation among a business's sustainability and value-added as it was argued by Aras et al., (2011).

Proactivity contains sustainability of managing stakeholder engagement and accounting systems. Efficient investors' engagement permits a firm to pinpoint and better recognize their needs, and expectations to address these as part of the integrated reporting procedures (King Committee on Corporate Governance, 2016; Alrazi et al., 2015). The accounting and management methods deliver the official databases and procedures for detecting, observing, reporting and evaluating the material sustainability metrics (Melnyk et al., 2003). If the organization monitor and control the management and accounting system, infrastructure could be seen as an integral part of the business model. Investors' engagement can complement and address sustainability-related concerns at the operational and strategic level. The outcome is the creation of an integrated reporting, which contains facts about plans, rules and actions intended to guarantee legality and long-term sustainability (de Villiers and Maroun, 2017; Alrazi et al., 2015; Stubbs and Higgins, 2014).

Different managing directors raise the value of the significance of non-financial and financial assets for creating sustainable profits, IR is no longer a compliance implementation, it delivers a conceptual outline, which a firm could use to comprehend and achieve business sustainability. Managerial approaches can also affect the improvement of managerial controlling methods and accounting tasks which lead to improving investors engagement and lead to superior sustainability performance and advanced excellence integrated reporting system (Al-razi et al., 2015; Brown and Dillard, 2014; Eccles and Krzus, 2010; King committee on corporate governance, 2016).

Khaldoon, Larissa, (2018) argued that however, integrated reports on their own are not sufficient for establishing a coherent reporting and operational concept, as it needs a deeply embedded organizational mindset to disperse and maintain the concepts implementation according to the IIRC framework. Integrated Thinking (IT) is defined 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. IT leads to integrated decision making and actions that consider the creation of value over the short, medium and long term horizon” (IIRC Framework, 2013). The current study adopts this definition of IT, as the IIRC is the only professional body that has officially provided a definition for it and has engaged with the concept of IT in some detail. The GRI, for instance, identifies IT as important but does not engage in further explanations or definitions of it but instead also, refers to the IIRC and confirms that GRI and IIRC have commenced a project that serves to eliminate any IT and IR confusions between the two bodies’ publications (GRI, 2011; GRI, 2017). Organizations have the choice which guideline to follow, until a mandatory set is available. Implementation of IT can be challenging but serve to enhance the value of IR.

When integrated reporting confronted with challenging visions, that argued the inability of the accounting to cope with the new concept. One of the most dominant opinions is the one that arguing that there are trust in IR’s capability to take along with societal order and increase business accountability (Chenhall et al., 2013; Silvestri et al., 2017; Robertson and Samy, 2015; Eccles and Krzus, 2015; de Villiers and Maroun, 2017; Guthrie et al., 2017; Adams and Simnett, 2011).

Other researches supported that opinion by stating that managers believe that IR is the only practical conciseness that is up to the challenge of providing a comprehensive system of disclosing information from within the existing accounting system (Atkins and Maroun, 2015; Lodhia,2015; Adams et al., 2016; Chaidali and Jones, 2017; Dumayet al.,2017; Dumay and Dai, 2017; Macias and Farfan-Lievano, 2017; Ahmed Haji and Anifowose, 2017; McNally et al., 2017; Sinnewe, 2017). Some managers are less optimistic about practical implementation of the integrated reporting concept, considering that the benefits of IR are a tactical alignment and representing the connection between the asset's management, and the existing capitals of the business. This integral thinking is the active concern of the correlation between a firm's processes and the resources management adopted by the integrated reporting framework (IIRC, 2013; Lai et al., 2017; Higgins et al., 2014).

Integrated thinking methodologies are observed as effective management accounting tool that can be used to enhance performance reporting and strategic management governance (McNally et al., 2017; Oliver et al., 2016; Guthrie et al., 2017; Feng et al., 2017; Stubbs and Higgins, 2014). The proponents of IR, say that integrated reporting will widen the existing investors emphasis and accountability to specific forms of investment, accompanied with externalities, and their own benefits (de Villiers and Maroun, 2017; Dumay et al., 2017; Adams, 2015; Eccles and Serafeim, 2013). Integrated reporting is understood as a pre-requisite for bordering business sustainability and ethical accountability, by interpreting, how the entity is managing its input and output of its valuable assets and the capability of generating benefits to the firm value (Humphrey et al., 2014). Many researchers tackled this issue by providing examples to the integrated reporting implementation procedures for the purpose of driving an additional responsive integrated outline for other firms (Guthrie et al., 2017; ICAA, 2011; Eccles and Saltzman, 2011; Eccles and Serafeim, 2013; Churet and Eccles, 2014; Adams, 2015; Tweedie and Martinov-Bennie, 2015; IIRC, 2013; Dey and Burns, 2010). Unlike other rigid and quantifiable accounting reports, such as sustainability-related Global Reporting Initiative Standards (GRI), the IIRC outline is not recommended to be a compliance-based method and simply presents procedures for reporting (IIRC, 2013).

This high level of flexibility within the integrated reporting system is one of the major advantages in favor of applying the system over all the firms in different industries. When creating an opinion on the extent to which integrated reporting is organized, it was argued in according to the Content Elements and Guiding Principles of the IIRC outline, that integrated reporting handlers must also, depend on value judgements for the capitals of the organization. McNally et al. (2017) claimed that there is a certain doubt among managers who preparers the IR as they are not certainly convinced that stockholders take the integrated reporting seriously. As a result, any push-down tactic by managers concerning integrated reporting produces an additional compliance-driven instrument, that may be seen by the stakeholders as another way of presentation that management want to impose on them against their will (McNally et al., 2017).

The researcher argues here that in order to implement the integrated reporting in a smooth way there must be some orientation to the stakeholders to get acquainted by their needs and to make the new system of integrated reporting more understandable for them. The implementation process will require some adaptation from the management that will include a great modification in the current reporting system.

IR Disclosure and Firm Performance

Before the use of IR, for several years' previous studies focused more on investigating the value relevance of financial information disclosure and its impact on firm performance, they didn't consider to what extent non-financial information might has a considerable impact on firm's performance that should be taken into consideration (Beaver, 2002, Ernst & Young, 2014). The literature focused on the fact that there is no assemblage between both book and market value of several firms resulted in the need for discovering the hidden factor/s (non-financial information) that caused this variance (Lourenco et al., 2014).

The question of relation between company profitability and voluntary information disclosure is a complex one. The main theories of disclosure suggest that these aspects are positively related. Najm and Tufail, (2013) indicated that based on agency theory that accounting practices and voluntary disclosure are supposed to control conflict of

interests between shareholders, creditors and managers, while recent studies indicating that this relation not consistent all the time as (Horn, et al. 2017) indicating that the higher the profitability level of organization, the lower the level of voluntary information disclosed by management, as management might use this information for their personal issues like getting more remuneration or ensuring their stability inside the organization.

The main disclosure theories are trying to answer the ultimate question of any company about the profitability on the long run. Where most of the researchers concluded that there is a positive relation between the disclosure level and the firm profitability. Managers of the company are using the disclosure as a tool to enhance the image of the company in the eyes of the investors and creditors and in the same time to increase their remunerations and to secure their positions in the company. The signaling theory suggests that profitability is a good indicator for the high level quality of investment, in the same time it tends to decrease the risk associated with obtaining finance with high cost. Other opinion is justifying the higher disclosure level as a way for the management to distinguish its company from the other companies in the market (Larrán and Giner 2002; Oyelere et al. 2003; Marston and Polei 2004).

Lee and Yeo, (2016), Bernardi and Stark, (2018) and Zhou et al., (2017) highlighted the relation between IR and firm evaluation by examining the relation between IR disclosures and firm performance, they found that there is a positive relation between firm valuation and IR disclosure specifically in large and complex organizations. Regarding users' insights about the usefulness of IR, Zhou et al. (2017) and Bernardi and Stark (2018) tested the degree to which South African financial IR disclosure affects analyst forecast accuracy and cost of capital, where they concluded that the implementation of IR by several organizations raised the accuracy of analysts' forecasts and lowered the cost of capital.

On the other hand, Gul and Leung (2004) and Anton et al. (2004) reported a positive influence of profitability on the amount of information voluntarily disclosed by multinational companies listed on the New York Stock Exchange and by listed companies in Hong Kong,

respectively. Frias-Aceituno et al. (2013) confirmed this positive effect for integrated reports in their research.

Many researchers examined the relation between the integrated reporting and the performance of the company in general and specifically with the leverage level that is measured by the debt ratio. De Villiers et al. (2016), indicated that there is a significant correlation between the integrated reporting compliance level and the leverage level of the company and he explained that by the need for the information by the external capital suppliers. Iatridis (2012) and Annandale et al. (2004) illustrated that the integrated reporting as an information system can help the management in mitigating many kinds of risks including the need for borrowing funds which have been measured in these studies through the debt ratio as a proxy for the leverage level. According to O'Sullivan et al. (2008), the relationship between firm leverage and integrated reporting. Integrated reporting could lighten information asymmetry, thereby reducing the borrower's possible risk of default, in turn decreasing the cost of capital. So, integrated reporting may be aimed at acquiring capital at a minimum cost.

According to De Villiers et al. (2016), the firms that are in need for high credit facilities from lenders and creditors are more willing to have a higher level of compliance with the integrated reporting requirements. According to Kılıç and Kuzey (2018), it was explained that current financial reporting was complex to some extent and it was regularly beneficial for accounting specialists only. A lot of information was not outlined to provide a future outlook on strategy, performance, and risk. All of the focus was on financial numbers and a lack of information about risks resulted from any financial activity such as leverage which became less fit for the needs of stakeholders. Integrated Reporting was created as communication system by companies about value creation over time (Bernardi and Stark; 2018). IR gave penetration into external environment that influenced an organization, the resources, and relationship used and impressed by the business, and the way in which business interacted with the external environment and capitals to create value; and from the main variables that might affect the value of firms was leverage.

High leverage implies higher risk, the higher risk increases the cost and decreases the confidence of the investors, thus, lead the compa-

nies to disclose more information in integrated reports. The ratio of leverage was a representative for the financial risk of the companies. Firms that were highly leveraged faced a higher cost of capital, because debt means that there were higher risks. Based on the meaning of agency theory, highly leveraged firms disclose more information to decrease agency costs and accordingly, the cost of capital. Moreover, companies with higher leverages might tend to disclose more information in integrated reports: to satisfy their creditors' information needs, to reduce risk premiums in required rates of return on equity, and to comfort their shareholders. Some empirical studies had also, reported a positive association between leverage and information disclosed in integrated reports (O'Sullivan et al., 2008; Aljifri and Hussainey, 2007; Wang and Hussainey, 2013). In this sense, it was anticipated that firms with higher leverages disclosed more information. On the other hand, there were other studies reported negative and weak significance between leverage and information disclosed in integrated reports. These findings suggested that highly leveraged entities disclose less information in integrated reports. This result is consistent with that reported by Kılıç and Kuzey (2018).

However, it was noted that empirical studies presented mixed findings. Some researchers documented a positive correlation between leverage and integrated reporting (Bradbury, 1992) while others could not find any significant statistical relationship between leverage and integrated reporting (Craswell and Taylor, 1992; Hossain et al., 1994; Raffournier, 1995) or reached a significant negative relationship (Meek et al. 1995). Thus, the direction of the expected association was not stable or consistent among the different studies.

Moreover, empirical studies particularly those from South Africa, (Ernst & Young, 2014; Marx and Mohammadali-Haji, 2014; Baboukardos and Rimmel, 2016, De Villiers et al., 2017) suggested that firms after the adoption of IR exposed sufficient information regarding the firms risk exposure, help firms to manage various types of risks, eliminating uncertainties and identify more clearly the investment opportunities, IR can be considered as signal to the market about the stability of the organization that impact positively on the value relevance of earnings.

IR Disclosure and Firm value

Based on Stakeholder theory that explains the accountability of the board of directors to both its shareholders and other interested parts, this theory providing both social and economic values and a consideration of ethics and morality, which is essential for estimating the firm's value (Freeman, 2004). Carnevale et al., (2012) illustrated important role of IR disclosure in developing the stakeholder theory, the IIRC Framework states that it is important to inform stakeholders with valuable information about organization's financial and non-financial investments, for example debt or equity financing, manufactured capital like tangible assets, intellectual capital like intangibles and natural capital like air, water and land (IIRC, 2013, Framework: 2.14 and 4.31; Eccles and Krzus, 2010).

However, signaling theory indicating that organization can use profitability as an indicator for its stability and investment level, more profitable organizations seeking for more voluntary disclosure of information to be sent as a signal to the market, where the higher level of information disclosed might lead to more asymmetric information (Cahan et al. 2016). Despite the coherence of the arguments expressed in the theories on information disclosure, numerous studies have found no statistically significant relationship between the degree of voluntary disclosure and the level of profitability (Larrán and Giner 2002; Oyelere et al. 2003; Marston and Polei 2004), especially in the case of segment information (Prencipe, 2004).

Recently, public awareness about the importance of CSR disclosure as a way of evaluating the organization performance increased. (De Villiers and Marques 2016; Cahan et al. 2016) assessed the relation between the voluntary disclosure of organizations social responsibility (CSR) and firm value, they found that firm's future cash flow increased as higher disclosure of CSR information that lead to lower discount rate as firm value incorporates both firm future cash flow and discount rate. On the other side Cahan et al. (2016) highlighted that the relation between CSR and firm value is a negative relation as firm value might decrease as CSR become more routine over time (treated as mandatory disclosure).

Pavlopoulos, A., Magnis, C., & Iatridis, G. (2019) contributed to the previous studies by focusing on the relationship between CSR disclosure, assurance and firm value for time period between (2007 and 2012) the study considered as primarily consulted in South of Africa, based on data collected by (KPMG), they presented six measures for CSR reporting where the first three variables measure trends of CSR assurance and the other three reflect CSR disclosures. The results of the study contributed to the literature regarding the factors that might decrease the relation between CSR disclosure and firm value. The following results had been reached by the study, first: the relation between volume and regulations of disclosure which is an important factor should be taken into consideration in the future research, as its most commonly known that the developed countries have higher rate of disclosure because of the higher restrictions of disclosure for listed companies than developing countries, second: the relation between CSR assurance and firm value is negative especially in organizations the not listed in SRI index, this result matching with Simnett et al., (2009) and Cahan et al. (2016), who indicate that the significance of relation between CSR and firm value differs relative to the industry type, what is essential for one sector might not be important for the other one.

Therefore, it is important to support IR regulators with studies guiding their decisions considering mandating CSR disclosure, IR and its effect on firm value, company performance and quality assurance, from the other point of view the relation between quality of accounting information and CSR disclosure and firm value is a considerable issue (Pavlopoulos, A., Magnis, C., & Iatridis, G., 2019).

Finally, it can be summarized that firms with high IR disclosure quality will reveal a higher firm value and value relevance than others (IIRC, 2013; Hoque, 2017) as IR develops the information environment in complex firms, IR can benefit firms by attracting investors who care about CSR disclosure and sustainability issues; reduces investor uncertainty, IR can lead to material efficiency, decreasing cost of capital, influencing the firm's share price and minimizing waste (Ramchander et al., 2012; IIRC, 2013).

Research Hypotheses

As a result of scanning the literature review the following hypotheses had been developed by the researcher:

1. There is a significant association between level of (IR) compliance and the profitability of firms (ROE: Return on equity) across the Egyptian stock exchange market.
2. There is a significant association between the level of (IR) compliance and the Leverage level of the firms (Leverage: Debt ratio) across the Egyptian stock exchange market.
3. There is a significant association between level of (IR) compliance and the capitalized market value of the firms (Market value: Number of shares multiplied by the market price at the date of the financial statements) across Egyptian stock exchange market.

Results And Discussion

In this part, the researcher used a group of the statistical techniques for testing the hypotheses of the research. The statistical techniques included descriptive analysis, t-test analysis, Pearson correlation analysis, linear regression analysis and curve estimation regression analysis. The statistical part of the research will start by showing the descriptive analysis results.

Descriptive analysis

Table (1) shows the results of the descriptive analysis for the research variables: ROE, Leverage, Market value and IR index. The descriptive analysis results are for the data tested by the researcher which are extracted from EGX30 index companies for a period of 6 years (2012-2017).

Table (1): Descriptive analysis for ROE, LEV, Market Value and IR Index

	N	Minimum	Maximum	Mean	Std. Deviation
ROE	180	-.4113118152	.4462034482	.0232390130	.1181536322
Leverage	180	.1683876032	.8659342760	.3828059245	.1788408976
Market value	180	.130	53.250	10.80359	8.910607
IR Index	180	.2571428571	.7142857142	.4845238095	.1094857782

The results in table (1) showed the minimum, maximum and the standard deviation for the research variables ROE (where the profitability of the companies ranged from -41% to 44%), Leverage (the company debt ratio ranged from 16% to 86%), Market value (where the stock prices ranged from 0.13 LE to 53 LE), and the Integrated report index results (ranged from implementation level of 25%% to 71%). Table (1) results gave an overview on the collected data to validate its appropriateness for the next statistical techniques applied by the researcher.

The results of the descriptive analysis could lead the researcher for noticing that some of the companies were achieving losses especially in 2012, 2013, 2014 and 2015 and that resulted in the negative sign of the ROE minimum value. The IR index results indicated that the minimum implementation value for the requirements of the integrated reporting is nearly 25% is a good base for the companies to enhance this percentage in the future.

Correlation Analysis

Table (2) shows the results of the Testing for multicollinearity of the research variables. The Pearson correlation analysis had been performed to support the results of the t-test and to determine the direction and significance of correlation among the variables of the study (ROE, LEV, Market value and the IR Index) as follows:

Table (2): Pearson correlation analysis

	ROE	Leverage	Market value	IR Index
ROE	1			
Leverage	-.059*	1		
Market value	.066*	.026*	1	
IR Index	.222**	.253**	.199**	1

**Correlation is significant at the (.01) level

*Correlation is significant at the (.05) level

The results from table (2) shows the significant positive correlation between the ROE, Leverage and market value of the firm with the IR index. The results are very logic from the point of view of the researcher and they are in compliance with the results of wide range of the previous studies (Lee and Yeo, 2016, De Villiers et al., 2016, Horn and de Villiers, 2018).

From the correlation analysis the researcher can conclude that there is a positive and significant correlation among the variables except for the negative significant correlation between the ROE and the leverage of the sample tested. All the correlations confidents are significant at levels less than (0.05) and (0.001).

The researcher then moved to the linear regression analysis to determine the magnitude of effect on the dependent variables by the independent variable.

Linear regression analysis

The researcher conducted the linear regression analysis to determine the regression equation showing the co-efficient for the independent variable reflecting the effect on the dependent variables.

Table (3) showing the results of the first regression model that includes the impact of the (IR Index) integrated reporting index on the (ROE) return on equity of the sample selected from the companies listed in EGX 30 index. The results show that the model is significant ($0.003 < 0.05$); however, the adjusted R^2 value is 4.4% that indicated the extent of the IR Index to explain the variation in the ROE within the tested sample.

Table (3): linear regression results for IR Index and ROE

Model		Unstandardized Coefficients		t	Sig.	Adjusted R Square
		B	Std. Error			
1	(Constant)	-.093	.039	-2.369	.019	4.4%
	IR Index	.240	.079	3.037	.003	

$$\text{ROE} = -.093 + .240\text{IR}$$

Table (4) shows the coefficient of the impact of the IR Index on the LEV(Leverage) within the regression model. The results are significant at level less than 0.00; however, the adjusted R² value is 5.9% which is greater than the adjusted R² value of the first regression model.

Table (4): linear regression results for IR Index and LEV

Model		Unstandardized Coefficients		t	Sig.	Adjusted R Square
		B	Std. Error			
1	(Constant)	.182	.059	3.099	.002	5.9%
	IR Index	.414	.118	3.494	.001	

$$\text{Leverage} = 0.182 + .414\text{IR}$$

Table (5) shows the regression results for the Integrated reporting index (IR) as an independent variable and the Market value as a dependent variable. The results of the model are significant at level less than 0.05; however, the adjusted R² value is 3.4% which is less than the adjusted R² values of the other two regression models

Table (5): linear regression results for IR Index and Market value

Model		Unstandardized Coefficients		t	Sig.	Adjusted R Square
		B	Std. Error			
1	(Constant)	2.959	2.969	.996	.320	3.4%
	IR Index	16.191	5.978	2.708	.007	

$$\text{Market value} = 2.959 + 16.191\text{IR}$$

The results of the regression analysis helped the researcher in accepting all the research hypotheses; where the regression model

showed that the leverage is the highest to be affected by the IR Index, then comes the company performance and at the third place is the Market value of the company. Based on these results the researcher can conclude that the regression equation is presenting a powerful function for predicting the relation between the Integrated reporting compliance level and the profitability, leverage and the market value of the firm listed in the Egyptian stock exchange market.

Regression Curve Estimation Fit analysis

The regression curve estimation fit analysis is used to test the validity of the regression equation that had been resulted from the previous regression analysis as to predict the effect of the integrated reporting on the dependent variables (ROE, Leverage and market value). The curve estimation analysis tested each of the dependent variables by showing the predicted value, residuals, and the prediction level and its distance from the predicted values of the variables. This can be seen from the results shown in table (6) and figures (2), (3) and (4).

Table (6): Model Summary and Parameter Estimates for ROE, LEV and Market value

Equation		Model Summary				
		R Square	F	df1	df2	Sig.
Linear	ROE	0.044	9.223	1	178	.003
Linear	LEV	0.059	12.207	1	178	.001
Linear	Market value	0.034	7.335	1	178	.007

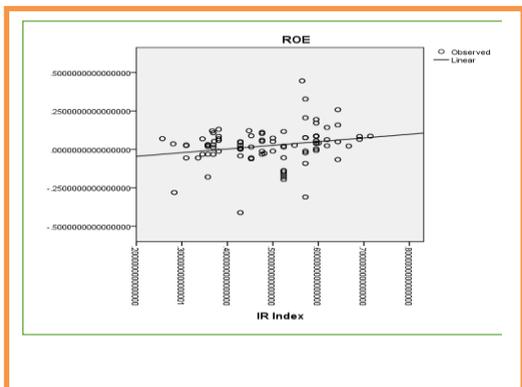


Figure (2): Curve estimation model for ROE and IR

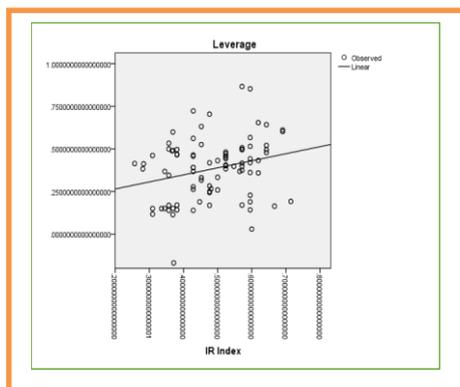


Figure (3): Curve estimation model for Leverage and IR

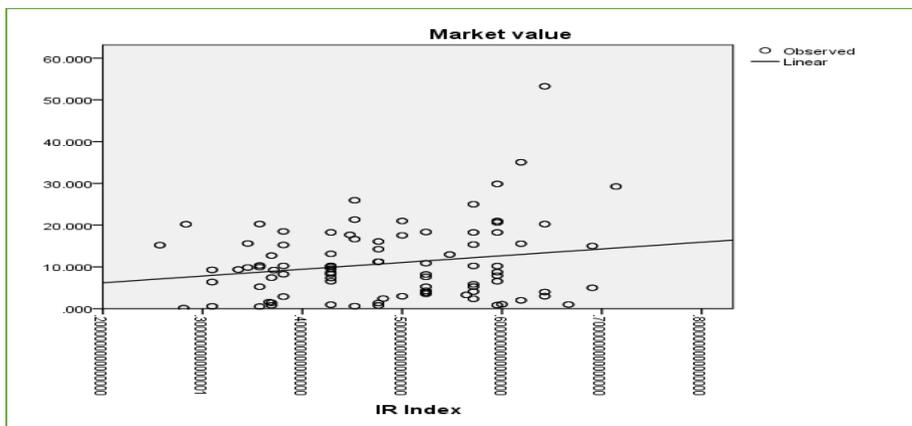


Figure (4): Curve estimation model for Market value and IR

Figures (2), (3) and (4) showing the results of the **Regression Curve Estimation Fit analysis** for the regression models of the research variables. The figures are showing the scatters points that represent the actual observations around the regression models in order to illustrate their validity for predicting the effect on the dependent variables. In addition, table (6) revealed that F (statistic) values for ROE, LEV and Market value which are 9.223, 12.207 and 7.335 respectively at a significant level less than 0.001 and 0.05. From the results of the curve estimation regression analysis the researcher can conclude that the hypotheses of the research are accepted and that IR Index has a significant positive impact on the ROE, LEV and the market value within the companies listed in the EGX 30 index. The results of the

statistical analysis are in compliance with the results reached by other researchers within the literature review (44444 et al., 2013; Chenhall et al., 2013 and Churet and Eccles, 2014)

Conclusion

This research intended to examine the level of compliance to the integrated reporting requirements within the IIRC Framework issued in 2012 in the Egyptian stock market and the impact of the level of compliance on the profitability, leverage and the market value of these companies. The research used data collected from annual reports of the companies listed in the EGX30 index and through the company's websites. This paper, could be seen as an initial effort for understanding the main features and requirements of the integrated reporting in the Egyptian stock exchange market, as that can encourage the local and foreign direct investment that are looking for secure and profitable opportunities.

The findings of the study based on the statistical analysis results that included descriptive analysis, Pearson correlation supported the positive significant correlation between the IR level of compliance and the firm profitability, Market value and leverage level and as a result the acceptance of the research hypotheses.

The results of the regression analysis showed the direction and the magnitude of the independent variable (IR Index) on the dependent variables (ROE, LEV and Firm Value). The results indicated the power of IR Index in explaining the variability of ROE, Leverage and market value with adjusted R^2 percentage of 4.4%, 5.9% and 3.4% respectively. The results of the regression curve estimation analysis showed the ability of the regression models in estimating the values of the dependent variables.

The results are logic where the positive significant association indicated that the higher the level of compliance to the integrated reporting, the higher the profitability of the firm and the higher the firm value and the higher the easiness of obtaining low cost debts. The reason for that from the researcher point of view is that the higher the disclosure level the higher the trust of the investors and creditors in the companies and as a result it will be easier to the companies to raise fund through equity market or debt market.

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