

# THE PROBABLE EFFECT OF INTEGRATED REPORTING ON AUDIT QUALITY

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## Abstract

This paper examines a probable effect of integrated reporting on improving the audit quality of organizations. I correlate the hypothesis of this paper in relation to the current trends of protecting the economies, the financial markets and the societies. I predict an improvement of the audit quality, as a result to an estimated percentage of organizations' reliance on the integrated reporting in their accountability perspective. I used a decision tree and a Bayes' theorem approach, to predict the probabilities of the significant effect on improving the auditing quality. I find the overall result of this paper, indicates that the probability of organizations to rely on the integrated reporting by a significant percentage, predicts also a significant improvement in audit quality.

**Keywords:** Integrated Reporting, Audit Quality, Sustainability, Probabilities

## 1. INTRODUCTION

The purpose of this paper is to measure the probable effect of integrated reporting (currently discussed and including information more than the sustainability reporting), on improving the audit quality of organizations, considering the significance of the accountability toward the overall society, and the shape of the future.

The few previous years have raised the significant effect of auditing quality, on the investors' decisions in the financial markets. Based on notable readings and searching, it was assured that the need for auditing quality can be affected by the current trends and directions of protecting the economies, financial markets and the society.

To my view, it is noticed how the sustainability reporting has expanded nowadays to become expressed as integrated reporting, that has an effective role in developing the role which the auditing profession plays in the economies, financial markets and the society.

Few of the essential studies show the importance of the auditing quality; Cohen et al. (2014) examine several aspects of assuring the sustainability reporting, from both internal and external assurance perspectives. DeFond and Zhang (2014) show the common proxies used for audit quality to sustainability reporting. My view in this regard, is that high quality reporting for sustainability (which indicates the integrated reporting), is a major influence on improving the auditing quality required for the assurance of those reports quality as well.

To the extent of auditing process and auditing quality, DeAngelo (1981) shows that auditing quality always obtains concern of the accounting profession, government and society, as well as the investors. Hence, the risk of information asymmetry in the integrated reporting, is considerably affecting the

quality of audit assurance and accordingly earnings quality and sustainability (See, e.g. Francis et al. 2004; 2005; Fee 2006; IFAS 2005; Chen et al. 2011; Bashirzadeh et al. 2014).

Further, the rise in the number of sustainability reports, increases the awareness of environmental and social issues, and generates the integrated reporting, that results in the rise of the accountability of organizations toward their integrated reporting system, that should be subjected to a high quality audits to detect errors and frauds (See, e.g. Junior et al. 2014; Birjandi 2015; Achyarsyah 2015).

Throughout the previous decades, it is obvious how far is the increase in the available auditing guidelines, or guidance statements issued by bodies as Accountability, the European Federation of Accountants, and the Global Reporting Initiative (See, e.g. CPA Australia 2004; Diegan et al. 2002; FEE 2002, 2004, 2005; NIVRA 2004; Zadek & Raynard 2004).

As a consequence, emphasizing, applying and tracing the assurance of the integrated reporting, in order to cause the raise in the quality of auditing. On the other hand, Gray & Mark (2002) show the importance of measuring the extent to which the organizations had contributed to the sustainability of the plant, and also predicting how resorting sustainability requires substantially more complex, involved and testing form of report that goes beyond the triple bottom line (expressed nowadays as the integrated reporting).

Institute of Directors Southern Africa (2009) illustrates this integrated reporting as a holistic and integrated representation of the company's performance, in terms of both its finance and its sustainability. Also, International Integrated Reporting Council (2013) demonstrates that the integrated reporting is a promising new standard for external reporting by organizations, and provides a

better explanation on how an organization creates value, which shows a concise communication about how an organization's strategy, governance, performance, and prospects, in the context of its external environment, lead to the creation of value in the short, medium, and long term. Thus, such reports build the probable effect on the organizations auditing, to the degree that should consider the risk of information that might be embedded in the reports.

In regard to a more consensus, studies reveal the compromisation of how 2007/2008 financial crisis have increased the demand of all interested parties, for transparency and greater ethical responsibility, thereby, increasing the importance of disclosure in the integrated reporting, consequently, the importance of affected and improved audit quality (See, e.g. Arvidsson 2011; White 2010; Parguel et al. 2011; Savitz and Weber 2014; Alexandra et al. 2015; Huggins et al. 2015). Thus far, audit quality is measured by several aspects. Achyarsyah (2015) shows how Duff (2004) and Rosnidah (2008) express the indications of what to improve in the audit quality, through its overall system, dimensions of quality, technical quality, auditor client relationship, and independence.

This paper traces the effect of organizations' reliance on integrated reporting, and as a result improving the audit quality internally, and in particular externally, as to help answer the major question of this paper: "Is there an expected effect when relying on integrated reporting on improving the audit quality?"

This paper uses Bayes' theorem approach to build a decision tree, that predicts the probable effect of relying on the integrated reporting  $D_i$ , which is measured by the quartile  $Q_3$  of the percentage of reliance, on the audit quality  $S_i$ , as to be improved or not, based on weights  $w_i$  assigned to the audit quality.

Empirical results confirm a promising prediction. I find that the prediction of audit quality to be strongly improved and affected, by the percentage of reliance on integrated reporting in the organizations, is relatively high. Further, I document a global prediction of organizations to rely on integrated reporting, as to result in a strong improvement in the audit quality.

The findings are robust to cause a significant improvement in the general sustainability of business environment, and social environment, by such reliance on integrated reporting, and make a contribution to induce organizations to rely on integrated reporting, as a means for improving audit quality. Finally, my evidence is likely of interest to the international business environment, accounting, auditing organizations, and regulatory bodies, to do more expanded empirical research, to support the vision in the current environments.

The remaining of this paper is organized as follows: section 2 shows literature review and background, section 3 shows the methodology used, section 4 shows the results of the empirical study, and finally, section 5 shows the conclusions.

## 2. LITERATURE REVIEW

In this section, I discuss the prior research based on the three dimensions of this paper, as it is meaningful to discuss the integrated reporting recent and previous issues, and suggestions in relation to the audit quality and its expected improvement, that all are very clear in the concept of what I express as comprehensive sustainability.

Prior research examining the importance of integrated reporting, have made a significant standing point for the future expectations for the businesses, to contribute to the three bottom line. Hoornweg (2015) finds documentation on how cities are likely to grow for the rest of this century, by the validation and greater specificity of sustainability approaches, and perspectives that would serve as the start of a global process leading to comprehensive sustainable development. Therefore, the dimension to integrated reporting would assist to grow the comprehensive sustainability.

Kihlstrom and Larsson (2015) find indications that the integrated reporting framework, leads to the acceptance on what aspects of sustainability to take into account, internally, among different organizations and their shareholders, as to encourage transparency of value creation of organizations, that all make the integrated reporting the future of corporate reporting to grow efficiency, planning, competition, reputation, and brand building in various business fields.

Araya et al. (2015) indicate that the highest adoption of sustainability reporting and assurance, is by organizations located in stakeholders oriented countries in sectors as insurance, agriculture, food, and wholesale and retail sectors. Raucci et al., analyze the Global reporting initiative GRI indicators, used by some organizations producing sustainability reporting to verify the number and type of sustainability indicators, disclosed in the reports in accordance to GRI guidelines, and by analyses.

Kjaergaard et al. (2015) show the types of indicators as related to the focus on intra-and inter-organizational capabilities and best practices which are proposed to have an impact on sustainability performance along the entire supply chain. On the other hand, few studies analyze the expected effect of using the sustainability reporting on various aspects, as the positive relationship to the improvement of financial performance, the improvement in investment decisions, and the improvement of high quality disclosures in order to improve the forecasting accuracy (See, e.g., Karlsson and Lena 2015; Shaer et al. 2015).

Nevertheless, among the prior studies, it is clear that absence of mandatory disclosures by the organizations in the integrated reporting would create a problem for the organizations and the investors. To my view, the GRI guidelines for preparing such reports should be induced and supported by the mandatory disclosures, as to be required by the accounting boards when sitting the principles based on the accounting principle of full disclosure.

Thus far, few studies also indicate those difficulties for obtaining an integrated reporting, that would benefit the investors and the entire

economy, environment, and the societies (See, Gray and Milne 2002; Morhardt 2009; Sarah and Roy 2015; Coates and Bice 2015; Deloitte 2015). To my knowledge, and my search for a sample of annual reports disclosed for the public on the websites, it is obvious how is the lack of the availability of integrated reporting, as a very low number of organizations are interested in disclosing their reports as integrated reports, including both financial statements and nonfinancial statements. This supports the prior studies expecting the problems to face organizations and investors.

Many papers since the evolution of sustainability's need aim to determine the disclosure practices required for the sustainability reporting. Salvion and Bosetti (2014) find a progressive induction for the integration of responsibilities and the introduction of the international integrated reporting framework, and find evidence for the initial adoption of the framework for integrated reporting. Angga and Prabawati (2015) document the increases of corporate social responsibility in the annual sustainability report based on the GRI guidelines.

To my knowledge, some organizations in particular the large prestigious organizations, can perform better in regards to sustainability or integrated reporting than others, and insofar, financial reports haven't yet become a holistic significant source of the required information, to be included in the integrated reports, that disclose the organizations contribution to the societies.

Clayton et al. (2015) document the lack of integrated reporting of information needed by organizations' stakeholders. Main while, Anna et al. (2015) find an evidence for the possibility of reaching reforms of organizations act, as whilst the adoption to the integrated reporting framework, the assurance is desirable to ensure that reliance can be placed on integrated reports, and as a result, auditors role evolve to the regard of forward looking information.

Alshaer et al. (2015) find evidence supports that environmental disclosure quality and audit quality, increase environmental reputation, and more significantly, improve the audit quality. Among several studies, there is a significant evidence that the evolution of sustainability reporting, which embeds the integrated reporting need to gain credibility, and as a result promoted that companies adopt assurance on integrated reporting (See, Stinnett et al. 2009; Cho et al. 2014; Clarkson and Romi 2015; Peter et al. 2015). Furthermore, papers of studying the audit quality correspond the improvement for the audit quality, the impact on audit quality, how to measure it and encounter the arguments around the overlap between financial audit quality and sustainability assurance quality (See, DeAnglo 1981; Duff 2004; Mellquist and Stierna 2013; Birjandi 2015).

In the current phases of promoting the integrated reporting, Junior et al. (2014) find that sustainability report assurance, increases non-professional investors' willingness to invest in the organizations, and more willing when the organizations sustainability report is assured by accounting firms. Consequently, integrated reporting in general will be more significant, when assured by a high quality auditing process from the accounting

firms. Raphael (2015) finds that accounting profession has succeeded in developing professionally, and expanding into the area of sustainability assurance and the trend of integrated reporting. And also expects accountants to acquire sustainability expertise knowledge and a close alignment of financial audit with sustainability assurance, and as a result ensuring quality assurance work performance.

Herein, limited researches examine the effect of the reliance on integrated reporting, in order to improve the audit quality. The major focus and cognition of papers in this regard, have a tendency to seek assurance of integrated reporting, as to impact reported information quality, and reinforce credibility among stakeholders, the triple bottom line, stakeholders engagement, trust and commitment, and sustainable reputation of auditors (See, Gao and Zhang 2006; Tangpinyoputthikhum and thammanvinyu 2010; Junior et al. 2014).

This paper views the integrated reporting as a major argue for the probable effect on the organizations auditing quality, to the degree that should consider the risk of information that probably, can be embedded in the integrated reporting. As a consequence, I predict that the reliance on integrated reporting preserves risk minimization and improving organizations accountability for a certain limit. I also expect the improvement in audit quality, based on hypothetical expectation of hypothesis of  $H_1$ : there is a probable effect on improving audit quality. The empirical study in the next section examines this hypothesis.

### 3. METHODOLOGY

I use a decision making with probabilities approach, to specify the alternatives  $D_i$  and the states of nature  $S_j$  for chance events, that all indicate the research purpose for predicting the paper's chance events. I estimate data for this decision making for the percentage of the reliance on integrating reporting in the organizations  $D_i$ , and the consequences affecting audit quality improvement or not  $S_j$ , using the relative frequency of assigning probabilities, to show the methodology for this paper, a decision tree approach is also used to show graphically the sequence of the predictions, followed by a Bayes' theorem approach to assign conditional probabilities for the  $D_i$  and  $S_j$ .

#### 3.1. Data and the relative frequency for assigning the probabilities

The data are presented in two categories, the first category is for three alternatives showing the expectation of organization reliance on integrated reporting as  $D_1$ , to denote a percentage of 45% reliance on integrated reporting, where the 45% is the quartile  $Q_3$  of the range between 25%: 50%,  $D_2$  to denote a percentage of 70% reliance on integrated reporting, where the 70% is the quartile  $Q_3$  of the range between 50% : 75%, and  $D_3$  denotes the last percentage of 95% reliance on integrated reporting, where also the 95% is the quartile  $Q_3$  of the range between 75% : 100%.

The second category is for the state of nature, showing the expected improvement or not for the

organizations audit quality, measured by assigning the weight  $w_{ij} = 5$  to the lower limit of the expected state  $S_i$ , and the weight  $w_{ij} = 10$  to the highest limit of the expected state  $S_i$ , and from 5:10 are the weights  $w_{ij}$ , assigned to each  $D_i$  as for the two  $S_i$  for audit quality, expected to improve or not by relying on the probable integrated reporting  $D_i$ .  $S_i$  is shown in two

states,  $S_1$  is denoted for the expected strong effect on improving audit quality, and  $S_2$  is denoted for the expected weak effect on improving audit quality. Table (1) presents the assigning of the weights, ranging from 5 to 10 over the alternatives  $D_1, D_2$  and  $D_3$ , for the two expected states  $S_1$  and  $S_2$ .

**Table 1.** The Assigning of Weights 5 : 10 to the Alternatives  $D_1, D_2$  and  $D_3$  for the States  $S_1$  and  $S_2$

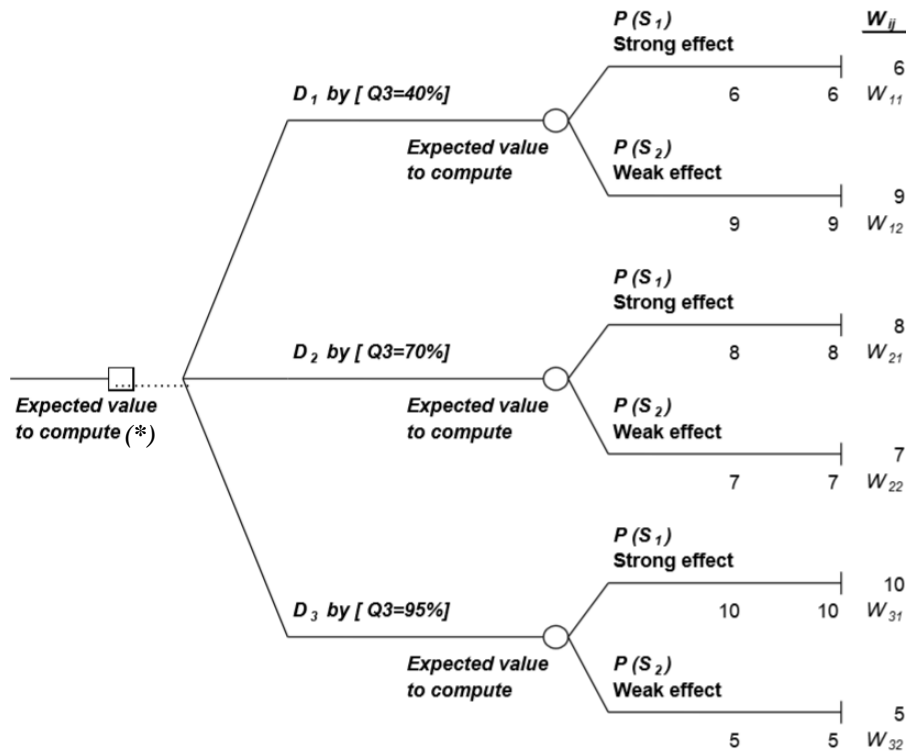
The percentage of the reliance on integrated reporting ( $D_i$ )	Expected Strong Effect on Improving Audit Quality ( $S_1$ )	Expected Weak Effect on Improving Audit Quality ( $S_2$ )
$D_1$ by [ $Q_3 = 40\%$ ]	$W_{11} = 6$	$W_{12} = 9$
$D_2$ by [ $Q_3 = 70\%$ ]	$W_{21} = 8$	$W_{22} = 7$
$D_3$ by [ $Q_3 = 95\%$ ]	$W_{31} = 10$	$W_{32} = 5$

Table (2) presents the probability distribution of the data in table (1), based on the relative frequency method for assigning probabilities for  $P(S_1)$  and  $P(S_2)$ .

**Table 2.** The Probability Distribution for the Weights of 5 : 10 to the Alternatives  $D_1, D_2$  and  $D_3$  for the States  $S_1$  and  $S_2$

The percentage of the reliance on integrated reporting ( $D_i$ )	Expected Strong Effect on Improving Audit Quality ( $S_1$ )	The Probability Distribution $P(S_1)$	Expected Weak Effect on Improving Audit Quality ( $S_2$ )	The Probability Distribution $P(S_2)$
$D_1$ by [ $Q_3 = 40\%$ ]	$W_{11} = 6$	0.25	$W_{12} = 9$	0.43
$D_2$ by [ $Q_3 = 70\%$ ]	$W_{21} = 8$	0.34	$W_{22} = 7$	0.33
$D_3$ by [ $Q_3 = 95\%$ ]	$W_{31} = 10$	0.41	$W_{32} = 5$	0.24
		1.00		1.00

**Figure 1.** The Decision Tree for the Three Decision Alternatives  $D_1, D_2$  and  $D_3$  for the States  $S_1$  and  $S_2$  with the Weights  $W_{ij}$



Note: \*Using a backward pass computation to compute the expected value  
 $D_1$  = The percentage of the reliance on integrated reporting by a quartile  $Q_3$  40%

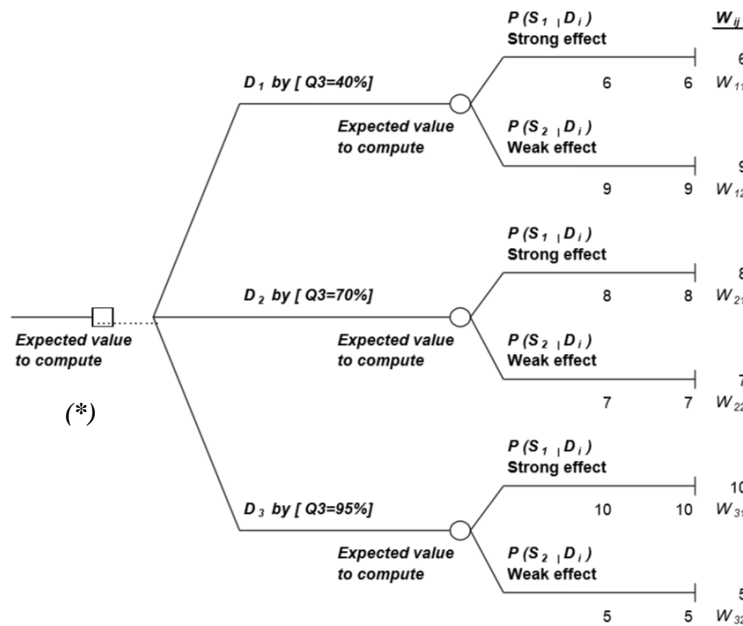
- $D_2$  = The percentage of the reliance on integrated reporting by a quartile  $Q_3$  70%
- $D_3$  = The percentage of the reliance on integrated reporting by a quartile  $Q_3$  95%
- $S_1$  = The expected strong effect on improving audit quality
- $S_2$  = The expected strong effect on improving audit quality
- $W_{ij}$  = The weights for the states  $S_1$  and  $S_2$

**3.2. The decision tree approach and Bayes' theorem**

For the analysis purpose of the estimated data, I use an Excel add-in TreePlan to develop a decision tree, for analyzing the research issue, as to measure and analyze a probable effect of the reliance on integrated reporting on improving the audit quality.

In this context, the expected improvement of audit quality, demonstrates the improvement of the conception of audit quality, as it is shown in the study of Achyarsyal (2015), directed to the overall dimensions of audit quality conducted by the accounting firms.

**Figure 2.** The Decision Tree for the Three Decision Alternatives  $D_1$ ,  $D_2$  and  $D_3$  for the States  $S_1$  and  $S_2$  with the Weights  $W_{ij}$  Based on Computing Branch Probabilities and using Bayes' Theorem, to Show the Conditional Probability



Note: \*Using a backward pass computation to compute the expected value

Figure (1) shows the decision tree for the research issue for  $P(S_1)$  and  $P(S_2)$ . Then in figure (2) I build the decision tree based on computing branch probabilities, using Bayes' theorem, to show the conditional probability to compute and consider, to predict posterior probabilities of  $P(D_i | S_1)$  and  $P(S_1 | D_i)$ .

To use the conditional probability, I use the Minitab statistical package, to help compute the probabilities  $P(D_i | S_1)$  and  $P(S_1 | D_i)$ , required to assign for the branches of the decision tree, as  $P(S_1 | D_i)$  and  $P(S_2 | D_i)$ .

**4. RESULTS**

Table (3) shows the descriptive statistics for the three decisions  $D_1$ ,  $D_2$  and  $D_3$ , indicating the percentage of reliance on integrated reporting, to affect audit quality improvement by the quartile  $Q_3$  for each decision, as  $D_1$  ranges from 25%: 50% with  $Q_3 = 45%$ ,  $D_2$  ranges from 51% to 75% with  $Q_3 = 70%$ , and  $D_3$  ranges from 76%: 95% with  $Q_3 = 95%$ .

**Table 3.** The Descriptive Statistics for the Three Decision Alternatives  $D_1$ ,  $D_2$  and  $D_3$  the Percentage of the Reliance on Integrated Reporting  $D_i$

(D)	Mean	StDev	Variance	Median	$Q_1$	$Q_3$
$D_1$ by [ $Q_3 = 40\%$ ]	37.5	7.65	58.50	37.50	30.75	44.20
$D_2$ by [ $Q_3 = 70\%$ ]	63.00	7.36	54.17	63.00	56.50	69.50
$D_3$ by [ $Q_3 = 95\%$ ]	88.00	7.36	54.17	88.00	81.50	94.50

Using the Minitab, the results of analyzing the data in table (2) show the computation of the conditional probability of the data shown in table (4), as the tabulated statistics showing  $P(D_i | S_1)$  and

$P(S_1 | D_i)$  in addition to the joint and marginal probabilities for the overall data.

From table (4) there is evidence that, if I preserve to know the expected effect on improving

audit quality as strong effect  $S_1$  or weak effect  $S_2$ . certain percentage of the reliance on the integrated reporting, and vise versa?

**Table 4.** Tabulated Statistics: Percentage of the Reliance on Integrated Reporting, and the Effect on Audit Quality  $P(D_i | S_i)$  and  $P(S_i | D_i)$  & Joint and Marginal Probabilities for the Overall Data

	Strong Effect $S_1$	Weak Effect $S_2$	Overall Effect
D <sub>1</sub> by [Q <sub>3</sub> = 95%]	1	1	2
	50	50	100
	33.33	33.33	33.33
	16.67	16.67	33.33
D <sub>2</sub> by [Q <sub>3</sub> = 70%]	1	1	2
	50	50	100
	33.33	33.33	33.33
	16.67	16.67	33.33
D <sub>2</sub> by [Q <sub>3</sub> = 45%]	1	1	2
	50	50	100
	33.33	33.33	33.33
	16.67	16.67	33.33
OVERALL D <sub>i</sub>	3	3	6
	50	50	100
	100.00	100.00	100.00
	50.00	50.00	100.00
% of row	Computes the conditional probability for the expected effect ( $S_i$ ) Conditioned on ( $D_i$ ) percentage of reliance on integrated reporting $P(S_i   D_i)$		
% of column	Computes the conditional probability for the expected effect ( $S_i$ ) Conditioned on ( $D_i$ ) percentage of reliance on integrated reporting $P(D_i   S_i)$		
% of Total	Joint and Marginal probabilities.		

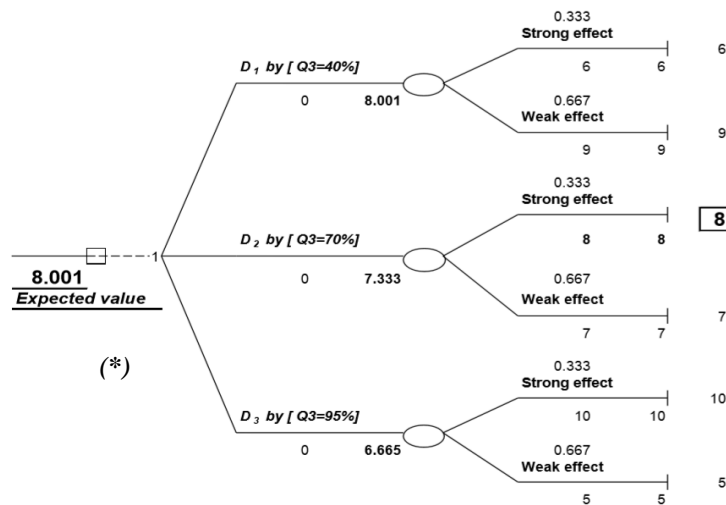
Table (4) shows that for  $P(S_i | D_i)$  it equals 33.3 %, as the conditional probability, for the expected effect on the improvement in the auditing quality, conditioned on the percentage of the reliance on the integrated reporting, indicating that if I choose randomly, I get in to a probable strong effect on improving auditing quality  $S_1$  by a chance of 33.3 %.

If this percentage of the probable strong effect to have a chance of 33.3 % to improve auditing quality, on the other hand, there is a chance to have  $S_2$  to have a weak effect on auditing quality by 66.7%. As a result, in the next section I assign to the

branches of the decision tree the conditional probabilities, as 33.3% for the expected strong effect on improving audit quality  $S_1$ , and 66.7% for the expected weak effect on improving audit quality  $S_2$ . Then, I examine the expected value to compute by the Excel add-in TreePlan, for the three decision alternatives  $D_i$  of the expected percentage of organizations reliance on the integrated reporting.

Figure (3) shows the results of using Excel add-in TreePlan, and the result of Bayes' theorem as the conditional probabilities  $P(D_i | S_i)$  and  $P(S_i | D_i)$  assigned as 33.3% and 66.7% respectively.

**Figure 3.** The Expected Value of the Decision Tree for the Three Decision Alternatives  $D_1, D_2$  and  $D_3$  for the States  $S_1$  and  $S_2$  with the Weights  $W_{ij}$  Based on Bayes' Theorem and Conditional Probability



Note: \*Using a backward pass computation to compute the expected value

Results of Figure (3) shows that after inserting the  $P(D_i | S_i)$  and  $P(S_i | D_i)$  to the TreePlan, it generates automatically the backward pass computations required to compute the expected value  $Ex(D)$  for the three  $D_1$ ,  $D_2$ , and  $D_3$ , indicating the probable percentage of reliance on integrated reporting assigned by the weights  $w_{ij}$ .

Table (5) shows the summary results of figure (3) for the backward pass computations for the probable weights that measure the expected value for the decisions  $D_i$  in relation to the sates  $S_i$  based on the Bayes' theorem and the conditional probability approach.

**Table 5.** The Summary Results of Figure (3) Backward Pass Computation of the Expected Value for the Decisions  $D_i$  in Relation to the Conditional Probability of Sates  $S_i$

The Percentage of the Reliance on Integrated Reporting $D_i$	Backward Pass Computations for the Expected Weights <sup>o)</sup> for $D_i$	Probability of Strong Effect on Improving Audit Quality	Probability Weak Effect on Improving Audit Quality	Backward Pass Computation for the Expected value for the weight of the $D_i$ Resulting in $D_2$
		$P(S_i   D_i)$	$P(S_2   D_i)$	$Ex(D)$
$D_1$ by [ $Q_3 = 40\%$ ]	8.01	0.333	0.667	
$D_2$ by [ $Q_3 = 70\%$ ]	7.33	0.333	0.667	8.01
$D_3$ by [ $Q_3 = 95\%$ ]	6.65	0.333	0.667	
<sup>o)</sup> $w_{11} = 6$ ; $w_{21} = 8$ ; $w_{31} = 10$ ; $w_{12} = 9$ ; $w_{22} = 7$ ; $w_{32} = 5$				

Overall, Table (5) results indicate that, for the organizations, the percentage of the reliance on integrated reporting by  $Q_3 = 70\%$ , which is  $D_2$ , is expected to affect the improvement of audit quality by a strong effect  $S_1$ , measured by the weight  $W_{21} = 8$ , as it is the nearest weight to  $Ex(D_i) = 8.01$ , generated by the decision tree and the Bayes' theorem used in the empirical study. The results support the hypotheses  $H_1$  for this paper, as there is a probable effect of the reliance on integrated reporting on improving the audit quality.

## 5. CONCLUSIONS

This paper examines the probable effect of using and relying on the integrated reporting, on improving the audit quality. My view is sit, based on the expected relation between current concept of the integrated reporting, and the probable comprehensive use of it, and the audit quality, that is expected to improve simultaneously with integrated reporting.

To measure this expected relation, I design the plan for measuring the probability of integrated reporting effect on audit quality improvement, I choose a design for a decision tree approach along with a Bayes' theorem approach, to measure the expected relation. For the purpose of expectation, I predict that the percentage of the reliance on integrated reporting by organizations, will significantly and strongly affect the audit quality improvement.

The empirical results confirm my prediction, whereas the probability of organizations to rely on the integrated reporting by a percentage of 70%, is predicting an improvement in audit quality by a weight of 8, with a conditional probability  $P(S_i | D_i)$  equals 33.3%, as a significant strong effect to improve the audit quality. I state the audit quality in this paper in relation to external auditing and further to the internal auditing.

Empirical results propose the improvement in both internal audit quality of organizations, and external audit quality by auditors. These results are robust to preserve the promotion of utilizing the integrated reporting by organizations, to significantly and strongly improve the audit quality internally and externally by the accounting firms,

and guide the entire environment to the sustainability of high quality for the reporting by organizations, and subsequently the auditing profession.

Overall, this paper provides contributions to several perceptions that preserve improvements for the international view to integrated reporting, and subsequently improving audit quality in the main, for all types of organizations and the concerning regulatory bodies, as the American Institute of Certified Public Accounts AICPA, the International Integrated Reporting Council IIRC, and the Global Reporting Initiative GRI, all to ensure the development of keeping trust, avoiding risks, and shaping the future, by creating values and effect on planning to improve audits and auditing quality.

In this paper, I skip over any noticed caveats and limitations that might appear among organizations or regulatory bodies; whereas I believe the role they can play for building and shaping a better future, and challenging the current dilemmas facing the globe in various areas.

My point of view for the findings supports the expectations of future value creations and manages key risks to build trust, and improves future performance. I recommend future studies to identify the expected global financial reporting transfer into integrated reporting, for financial and nonfinancial information, and to measure empirically, the effect on sustainability development in the globe, for people, planet and profit.

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