A proposed framework for the Adoption of XBRL Using IFRS Taxonomy to Develop Accounting Disclosure in Egypt
(an applied study)

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Abstract

The purpose of this research is to Provide a proposed framework for XBRL adoption in Egypt using IFRS Taxonomy to develop financial information disclosed to all stakeholders and evaluating the percentage of fit between IFRS Taxonomy and Egyptian IFRS financial reporting practices. To achieve this purpose, the researcher suggested a framework for XBRL implementation and applying it on three companies operating in the telecommunication sector that publish their financial statements in accordance with international financial reporting standards. These companies are Telecom Egypt (TE), Global Telecom Holding S.A.E. (GT), and Orascom Investment Holding S.A.E. (OI). The selection of these companies is based on that each company publishes its consolidated financial reporting in accordance with EAS and IFRS. The applied study based on XBRL mapping indicates that the highest common fitness outcomes percentage is found in Consolidated Statement of Profit or Loss and Other Comprehensive Income, with 80% of Fitness between IFRS taxonomy and financial reporting. The lowest common fitness outcomes percentage is found in Consolidated Statement of Changes in Equity, with 37% of Fitness between IFRS taxonomy and financial reporting. in addition to the applied study, the researcher also conducted a survey of the opinions of the financial management of the sample companies about the proposed framework for XBRL implementation according to IFRS Taxonomy for the development of accounting disclosure in Egypt. Considering the descriptive analysis of data, the researcher find that the study sample agreed on the validity of the proposed framework for applying XBRL using IFRS Taxonomy and its role in developing accounting disclosure in Egypt. and there is a statistically significant relationship between the proposed framework for applying XBRL using IFRS Taxonomy and the development of accounting disclosure, and enchasing the quality of information through improving information relevance, reliability, comparability, verifiability, timeliness, and understandability

Keywords: (XBRL – IFRS Taxonomy - Disclosure).

1. Introduction

With the appearance of the internet, many companies began using it in the disclosure of its financial information.

The electronic accounting disclosure of financial information passed three phases, are as follows: (1)

First Phase:

In this phase, the companies provide a copy of its financial information perfectly identical to the paper information, through the use of PDF format. In spite of the advantages of using PDF format of high quality in printing, its low cost of production and display. But there are some negatives of using this file, since it lacks the presence of interactive links that allow movement within the website between the parts of financial report. And also, the financial reporting data is not ready to be analyzed by users, where the PDF file does not allow to copy the financial reporting and reload it in excel file to make it easier to deal with.

Second Phase:

In this Phase, the companies used programming language which is mainly used in websites design, for the disclosure of their financial information on their websites.

This language is Hyper Text Markup Language (HTML), which overcome some of PDF disadvantages. Where, HTML allows to use the property of interactive links, along with the possibility of information indexing in financial reporting.

However, HTML has some disadvantages, such as,

- Low efficiency in saving or printing of financial reports.
- It provides information on how to display the page only, without proving any information about data content and how to prepare it.
- It transfers information as a full document without transfer of individual units separately.
- Information is not ready for analysis by users as in the case of using PDF format.

Third phase:

(1) Review:

- Debrecny R. Lymer, et al., (2000), "Business Reporting on the Internet", **A Paper Prepared for the International Accounting Standards Committee**, Available online at: ***http://www.shu.ac.uk***, Nov. P. 24.
- Fahim Abu Al-Azm Muhammad Muhammad (2003), "Using XBRL to maximize the use of electronically published business reports information", **The Scientific Journal of Trade and Finance,** Faculty of Commerce, Tanta University, No. (2), pp. 186-187.

In this Phase, the companies used the modern internet technology to innovate new display forms that overcome the cons of previous stages and facilitate the communication of business and financial information to stakeholders.

During this stage, new language is appeared, which is known as eXtensive Markup Language (XML).

And as a result of the efforts of many professional bodies and researchers in the field of accounting, the unified language for electronic financial reporting was designed, which is eXtensive Business Reporting Language (XBRL) that enables users to analyze the financial information included in financial reporting.

2. Research Problem:

Accounting disclosure of financial reporting via the internet faced several problems, the most important one is that most of companies disclose their financial and business information on their websites usually in different formats such as, HTML, Word, PDF, which vary from company to another.

These formats have various negatives such as the following:

- Not allowing to transfer parts of the financial report.
- Information in the financial report can't be indexed.
- It transfers information as an entire document.
- Information not being ready for analysis by users, where stakeholders are often unable to access the information provided in HTML or PDF formats on the company website.

and more importantly, it is difficult to compare information included in different financial reporting of different companies. And this leads to inefficiency and weakness in decision making process. Therefore, an unified accounting language has been found to overcome these limitations by providing a standardized method to prepare, publish, exchange and analyze financial and business information. This language is eXtensive Business Reporting Language (XBRL).

Now, XBRL is considered as a way of disclosure that helps to achieve the harmonization and standardization of financial reporting at the global level. And it is designed to improve the exchange, aggregation, and analysis of corporate data requiring disclosure through a unique tagging structure that provides interoperability.

But the proliferation of a multitude of XBRL taxonomies, based on different accounting principles can risk the objectives of standardization, comparability, and re-usability of the information that is sought with XBRL.

Where, there are various taxonomies such as:

- European countries taxonomy.
- Asian countries taxonomy.

- U.S. GAAP taxonomy.
- In addition to individual taxonomies in different countries. Such as, Canada, Israel, United Arab Emirates.

Therefore, it is essential to develop global accounting standards as a unique foundation on which the XBRL taxonomies can be established, so that, it becomes possible to compare the financial information originating from various countries.

So, the international financial reporting standards taxonomy was created to establish a common ground for international firms and create a platform that would enhance the benefits of XBRL.

International Accounting Standards Board (IASB) has taken a big step towards embodiment of the primary objective of providing global standards to ensure that unified reading of financial statements, which helps to keep up with global economic activities of the institutions. But the thing that represents a real shift in the history of IASB is the bilateral initiative between IASB and XBRL organization in year 2010. Which resulted in the insert of digital technology to standards and the preparation of IFRS taxonomy.

There is a growing body of research in relation to XBRL adoption. But the researcher finds that, there is a silence in research about XBRL in Egypt. And the most Egyptian companies disclose their financial and business information usually in traditional formats such as, PDF, Word, HTML.

Thus, it is interesting to know to what extent ESM is ready to implement XBRL by using IFRS taxonomy, what are the current perceptions of preparers of financial statement about XBRL, and what is the role of XBRL based on IFRS taxonomy in developing the accounting disclosure practices in Egypt, as it is one of the oldest stock markets in the Arab region and has a great influence on the other Arab countries.

The research can summarize the research problem: In the weakness of academic and professional keeping up with the international and regional steps towards the XBRL in Egypt.

And ESM is not kept up with the changes that taken by the international stock markets to shift to apply the XBRL using IFRS to develop and improve disclosure and transparency practices. The delay in the application of this language predicts problems in acceptance of the financial reporting of Egyptian businesses with international activity.

Research Questions:

The research problem can be illustrated through the following research questions:

1- Is the adoption of XBRL with IFRS contribute to achieve the international harmonization?
2- Is the adoption of XBRL based on IFRS taxonomy contribute to increase the level of disclosure and transparency in Egypt?
3- To what extent ESM is ready to implement XBRL by using IFRS taxonomy?
4- What are the current perceptions and knowledge of accountants, auditors, and regulators in Egypt about XBRL, and How they are see XBRL is going to enhance the accounting disclosure in general and specifically, the electronic disclosure?

3. Research objectives:

The main objective of this research is " Providing a proposed framework for XBRL adoption in Egypt using IFRS Taxonomy to develop financial information disclosed to all stakeholders and Evaluating the percentage of fit between IFRS Taxonomy and Egyptian IFRS financial reporting practices ".

4. Research hypotheses:

Considering the problem, objectives and importance of the research, the following hypotheses can be formulated:

1. In XBRL mapping process, there is fitness between the IFRS taxonomy and Egyptian IFRS financial reporting practices in the applied companies, in the four main consolidated financial statements, (Financial Position, Statement of Profit or Loss and Other Comprehensive Income, Statement of Cash Flows, and statement of owners' equity).

2. There is a statistically significant relationship between the proposed framework for applying XBRL using IFRS Taxonomy and the development of accounting disclosure.

5. Research methodology:

The researcher depends on the following methodologies to achieve the research objectives:

- **Inductive approach:**

The researcher depends on this approach in the study of molecules and details of research problem to get to the general truth about the benefits of XBRL implementing using IFRS, and review of previous studies associated with the use of both XBRL and IFRS.

- **Deductive approach:**

Which is based on deductive reasoning to study the impact of XBRL adoption on the development of disclosure in electronic financial reporting.

- **Comparative approach:**

The researcher depends on the comparative approach to compare among the experiments of some developed countries in the application of XBRL to know the shortcomings and try to avoid them.

6. XBRL: An Overview

XBRL is an open international standard for digital business reporting for the exchange of business reporting information within and across organizations. It is based on eXtensible Markup Language (XML) and was articulated in 1998 by Charles Hoffman. (2)

In 1998 XBRL was known as eXtensible Financial Reporting Mark-Up Language (XFRML). XFRML was introduced to address the issues of financial processing and analyzing and used for financial reporting. (3)

Then, XBRL' members changed the name from XFRML to XBRL, to incorporate all aspects of business reporting.

It is managed by a global not-for-profit consortium, called XBRL International Inc., that has members from companies and institutions that represent finance and IT sectors from all over the world. It is committed to improving reporting for the public interest by creating and developing a worldwide standard for electronic business reporting.

Generally, XBRL consists of two different specifications: XBRL Financial Reporting (FR) and XBRL Global Ledger (GL). The former is used to support the preparation of external financial reporting, while the latter is associated with accounting processes. (4)

For external financial reporting, XBRL is used in many countries, such as South Africa, United Arab Emirates, Kingdom of Saudi Arabia, Israel, Japan, South Korea,

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(2) Roger S. Debreceny, and et al. , " Flex or Break? Extensions in XBRL Disclosures to the SEC", American Accounting Association, **Accounting Horizons**, Vol. 25, No. 4, 2011, p 633 Published Online: December 2011 **DOI: 10.2308/acch-50068**.

(3) **Ibid**, P. 634.

(4) Devrimi Kaya, (2014)," The influence of firm-specific characteristics on the extent of voluntary disclosure in XBRL Empirical analysis of SEC filings ", **International Journal of Accounting and Information Management**, Vol. 22, Iss 1, pp. 2 – 17. Permanent link to this document: http://dx.doi.org/10.1108/IJAIM-05-2011-0007.

China, Italy, Belgium, United Kingdom, Chile, United States of America, and Canada.

6.1 XBRL Structure

XBRL consists of two components: taxonomy and instance document. Taxonomy is composed of schema and linkbases. An instance document is XBRL report that contains financial and nonfinancial data. The following sections explain XBRL components (Figure 1).

6.2 XBRL Taxonomy

In XBRL, a taxonomy is an electronic dictionary for the description and classification system for the contents of business reporting documents. It consists of two parts: a schema (or more schemas) and linkbases.

The purpose of XBRL schemas is to define taxonomy elements at which each element has attributes. The purpose of XBRL linkbases is to combine labels and references to the elements as well as to define relationships between those elements. Taxonomy extension occurs when a modification to the core taxonomy is needed. (5)

A collection of taxonomy schema documents and linkbases is called Discoverable Taxonomy Set (DTS). The schema is the part that contains definitions of the elements whereas linkbases provide the relationship between them. The linkbases includes label linkbases, reference linkbases, and relation linkbases (presentation, calculation, definition).

The relation linkbases manage the relations between taxonomy elements. Each one of the five kinds of linkbases has a special purpose. (6)

(5) Ayman E. Haddad Wafaa M. Sbeiti Amer Qasim , (2017),"Accounting legislation, corporate governance codes and disclosure in Jordan: a review ", **International Journal of Law and Management**, Vol. 59 Iss 1 P.150. Permanent link to this document: http://dx.doi.org/10.1108/IJLMA-07-2016-0064.

(6) Sandip Dhole and et al, (2015), " Effects of the SEC's XBRL mandate on financial reporting comparability", **International Journal of Accounting Information Systems**, vol. 19, P.30. Available online at: www.sciencedirect.com.

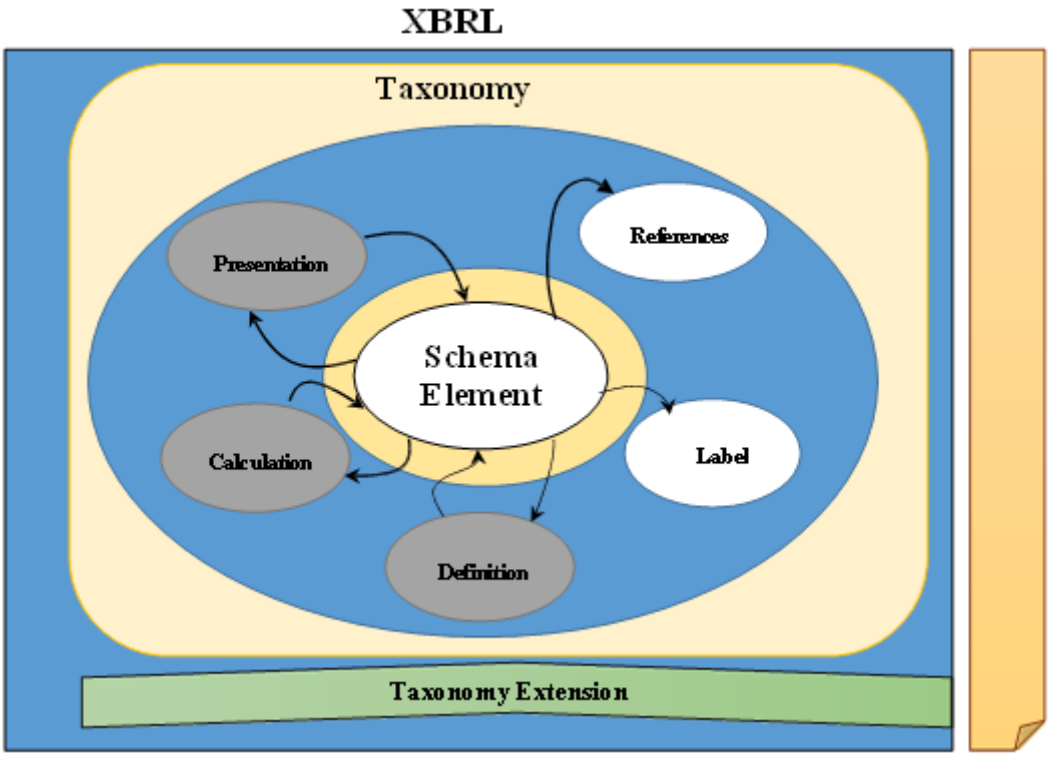

Figure 1 XBRL Architecture (The IFRS Foundation, 2014, 44)

First, the label linkbases at which elements can be connected to labels in different language. Second, the reference linkbases that provide further explanations to the elements by linking them to the concepts defined by the regulator. Third, the presentation linkbases that "specify the hierarchical grouping (mainly the parent-child relationship) and the order in which the elements are presented in a report". [7] Fourth, the calculation linkbases specify the numeric relationships between elements. [8] It can be used to validate the mathematical accuracy of the parent-child relationship contained in the instance document. Fifth, the definition linkbases that describe the logical relationships between concepts. [9]

([7]) E. Bonsón, V. Cortijo, and T. Escobar, (2019), " Towards the Global Adoption of XBRL using International Financial Reporting Standards (IFRS)", **International Journal of Accounting Information Systems**, vol. 10, p.50. Available online at: www.sciencedirect.com.

([8]) Chi-Chun Chou , C. Janie Chang, And , Jacob Peng, June (2016), "Integrating XBRL data with textual information in Chinese: A semantic web approach", **International Journal of Accounting Information Systems**, Volume 21, , Pages 32-46. Available online at: www.sciencedirect.com.

([9]) E. Bonsón, V. Cortijo, and T. Escobar, (2019), Op. Cit., P.53.

In general, "Taxonomies are developed by regulators, accounting standards setters, government agencies and other groups that need to clearly define information that needs to be reported upon". (10)

6.3 Instance Document

An instance document is the business report that is created in an electronic format according to the rules of XBRL. It is optimized for computer consumption and is not designed primarily for human readability.

The information contained in it is not closed and does not have a predefined fixed format. By using tags, data can be used interactively (i.e. extracted and processed automatically by computers).

In XBRL, financial data are tagged so that they can be easily understood and processed by computers. <Cash>900</Cash> is an example. The word Cash (element) together with brackets "<" and ">" is called a tag. Between the tags (opening tags: <…> and closing tag: </…>) 900 is a value. What computers understand from that example is that something called Cash has the content "900". Furthermore, tagging also extends to include footnotes, management discussion and analysis, and the auditors' report. (11)

6.4 Features of XBRL

The following section illustrates the main features of XBRL, which include: tagging, extensibility, searching capability, testable business rules (validating capability), and multi-dimensionality.

6.5 Tagging

XBRL tags are context-sensitive identifiers in the XML prepared in accordance with the XBRL specification that differentiate instance document from traditional document format. The presence of tags in instance document allows data to be extracted and exported across different platforms and software applications.

So, the interoperability and connectivity between different stakeholders in the business reporting supply chain are increased.

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(10) ALAA MOHAMAD MALO-ALAIN, June (2018), "Developing the Role of Auditing Profession In The Light of E-Disclosure of Financial Reports in KSA Business Environment" , **International Review of Management and Business Research**, Vol. 6 Issue.2, , p.410. Available online at: http://scholar.google.com.eg/.

(11) Yisong Peng, (2017), "Extension of the Transparency of Business Environmental Information Based on XBRL Technology", **Turkish Journal of Engineering and Environmental Sciences**, Vol.41, No.1, pp. 86-89. Available online at: http://scholar.google.com.eg/.

6.6 Benefits of XBRL Adoption

XBRL adoption could benefit all participants in the business information supply chain including preparers, auditors, regulators, managers, and investors. Some of the benefits are discussed below:

6.6.1 XBRL Ensure Multiple Use of Data
6.6.2 XBRL Could Attract Foreign Investment
6.6.3 XBRL Could Save Cost
6.6.4 XBRL Could Reduce the Effort and Time (Increase Efficiency)
6.6.5 XBRL Could Improve Accuracy and Reliability of Financial Data

7. Developing a Proposed Framework

The following section examines the risks in the process of creating XBRL documents in the phases of importing taxonomy, XBRL mapping, editing taxonomy, and creating instance document.

7.1 Importing Taxonomy Phase

This is considered the first stage through which the company identifies the relevant taxonomy that is determined by the regulator.

7.2 Mapping Phase

The mapping process is not often straightforward and requires judgment. The following sections discuss, the XBRL mapping process, and the tagging financial reporting.

Mapping is defined as a process of associating a financial statement line item to a taxonomy element. This process includes "careful analysis of the taxonomy documentation, matching the underlying nature of the concept to the data type of possible matches in the taxonomy (e.g., monetary, numeric, string), and lining up the period of the concept in the financial statement to the time period of possible taxonomy matches (e.g., reporting of concepts in the income statement match to taxonomy elements that measure durations, rather than instants in time)." [12]

([12]) Yanan Zhang, Yuyan Guan, and Jeong-Bon Kim, (2019), " XBRL adoption and expected crash risk", **J. Account. Public Policy**, xxx (xxxx) xxx, article in press, pp. 1-22. Available online at: www.sciencedirect.com.

The six situations as defined by Debreceny & Farewell (2010), that might face the preparer in the taxonomy mapping step, are: (13)

- First: finding a taxonomy element that matches to the corresponding line item in the financial statements.
- Second: finding a taxonomy element that matches to the concept in the financial statements but requires changing label name in the taxonomy.
- Third: finding taxonomy concepts that match financial statements element but is located in a different hierarchical relationship;
- Fourth: finding a taxonomy concept that is aggregated where it is disaggregated in the company financial statements;
- Fifth: finding taxonomy concepts that are disaggregated in the taxonomy where the company reports in the aggregate amounts.
- Sixth: financial statements element is not found in the taxonomy.

Regarding the first situation, no need for an extension, while in the sixth situation a necessary need for an extension because the element does not exist in the taxonomy. Also, situations four and five requires an extension as instance documents should reflect the official paper financial reporting. The remaining two situations (two and three) require caution because the element exists in the taxonomy. The careful analysis of taxonomy is needed to not locate these elements (in situations two and 3) in the sixth category and make for them extensions that are unnecessary. (14)

For situation two, the element exists but with different label name, which is not the exact concept in the financial statement. The company should refer to the regulator guide to identify whether to reflect the element in the taxonomy and change paper financial reporting element or to change the label name in the taxonomy to reflect the official filing. When the company changes the label name, it is not considered an extension, the extension happens when the element name in the taxonomy is changed. Once the element name is changed, it is considered another element and

(13) Islam Hasan (2018),” Evaluating the Quality of IFRS Information Obtained from XBRL/IFRS Taxonomy, with a Case Study”, **Master thesis in accounting**, Faculty of Commerce, Tanta University, p.85.

(14) Kamaleddin Yaghoobirafi, Eslam Nazemi,, (2019), " An approach to XBRL interoperability based on Ant Colony Optimization algorithm”, **Knowledge-Based Systems**, 163 PP.342–357. Available online at: www.sciencedirect.com.

influences the comparability of financial reporting information between companies. Generally, identifying the regulator guide regarding each situation is important. [15]

7.3 Editing Taxonomy Phase

After the company identified each item found in the financial statement and its correspondence element in the taxonomy the editing taxonomy proceeds.

In this stage, the preparer edits the taxonomy, by using the taxonomy editor tool. As for situation one, the taxonomy element is exactly corresponding to the concept in the financial statement. In the second situation, the element in taxonomy is like the concept in the financial statement. Therefore, the company must refer to the regulator guide to identify whether it is acceptable to change the label name to reflect company financial statement concept or not. In the third situation, the preparer needs to change the location of the element to be in the order as a financial statement concept [In some cases, element need to change location and label name (Situation three and two)]. For other situations, the taxonomy is extended if it is permitted by the regulators. [16]

7.4 Creating Instance Document

After editing the taxonomy, the preparer needs to insert the element fact value in instance document. [17] The instance document is the XBRL report. It contains facts that are specific to the filer, and "each fact in the instance document is tagged with elements that exist in either the foundation or extension taxonomy". The tool used in this phase is the instance creator tool through which the preparer uses the official financial reporting to insert the data of each concept to the corresponding equivalent elements in the taxonomy.

The preparer should specify the context, for example, period and unit of reporting, for financial statements information. After completing the process, the business should validate the instance document. The created instance document should be the

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([15]) Doaa Aly, Sherif El-Halaby, Khaled Hussainey, (2018) "Tone disclosure and financial performance: evidence from Egypt", **Accounting Research Journal**, Vol. 31 Issue: 1, P.63. Available online at: www.emeraldinsight.com/1030-9616.htm.

([16]) Andrew J. Felo, Joung W. Kim, Jee-Hae Lim, March (2018), " Can XBRL detailed tagging of footnotes improve financial analysts' information environment?", **International Journal of Accounting Information Systems**, Volume 28, PP. 45-58. Available online at: www.sciencedirect.com.

([17]) Debreceny, R., & Farewell, S. 2020. Adios! Airways: An Assignment on Mapping Financial Statements to the U.S. GAAP XBRL Taxonomy. **Issues in Accounting Education**, 25 (3), P. 465.

same as the official financial reporting, and any difference between them should be considered as an error. (18)

7.5 Review, Audit, Submit and Issue XBRL Documents Phase

The final XBRL implementation phase is reviewing XBRL documents before submitting and issued it. In this phase, companies should review XBRL-related documents whether insourcing or outsourcing the process. Moreover, an independent assurance on the XBRL implementation process is required. Liu, Yao, et al. (2014) findings highlight the importance of quality assurance and policy enforcement for the value realization of the benefits from XBRL adoption. Srivastava and Kogan (2010) proposed a conceptual framework of assertions for providing assurance on XBRL instance documents. Four of these assertions are concerned with taxonomies: the choice of appropriate XBRL taxonomies for drawing instance documents; the compliance of taxonomy extensions with XML and XBRL rules; the appropriate introduction of new elements in XBRL Taxonomy and the appropriateness of linkbases in XBRL Taxonomy extensions. (19)

In general, some regulators require companies to validate and submit XBRL documents on their portal. However, they neither publish companies XBRL documents nor requires companies to publish XBRL documents on their websites (The availability of XBRL data is limited to regulator only). Other regulators require companies to validate, submit and publish XBRL documents like in the US. The US SEC publish companies' XBRL documents on EDGAR system and require companies to publish XBRL documents on their websites. (20)

8. The applied study through XBRL mapping

(18) Stephen A. Zeff, (2018)," More Accounting Changes: Financial Reporting Through the Age of Crisis and Globalization", book review, **The International Journal of Accounting**, In press, corrected proof, Available online 16 May 2018. Available online at: www.sciencedirect.com.

(19) O. Samuel Faboyede, and et al., (2017), " The Impact of Extensible Business Reporting Language Education And Adoption On Stock Exchange Development: A Focus On Nigeria", **Journal of Accounting, Finance and Auditing Studies**, 3/3, P. 15. Available online at: http://www.jafas.org.

(20) YISONG PENG, et al., (2016), "The Design System of XBRL Software Tax Registration and Data Transmission Encryption", **International Journal of Simulation Systems, Science & Technology**, Vol. 17, Issue 20, pp.1-6. DOI 10.5013/IJSSST.a.17.26.20.

the researcher suggested a framework for XBRL implementation and applying it on three companies operating in the telecommunication sector that publish their financial statements in accordance with international financial reporting standards. These companies are Telecom Egypt (TE), Global Telecom Holding S.A.E. (GT), and Orascom Investment Holding S.A.E. (OI). The selection of these companies is based on that each company publishes its consolidated financial reporting in accordance with EAS and IFRS.

8.1 XBRL Mapping for Consolidated Financial Position 2021 based on current/non-current classification for the three companies.

8.2 XBRL Mapping for Consolidated Statement of Profit or Loss and Other Comprehensive Income according to the two classifications; by function of expense and by nature of expense.

8.3 XBRL Mapping for Consolidated Statement of Cash Flows according to the two methods; direct method and indirect method.

8.4 XBRL Mapping for Consolidated Statement of changes in equity 2021.

The Table (1) show the outcome of the matching process under each situation for each company for XBRL Mapping for Consolidated Financial Position 2021 based on current/non-current classification.

The Table (2) show the outcome of the matching process under each situation for each company for XBRL Mapping for Consolidated Statement of Profit or Loss and Other Comprehensive Income according to the two classifications: by function of expense and by nature of expense.

The Table (3) show the outcome of the matching process under each situation for each company for XBRL Mapping for Consolidated Statement of Cash Flows according to the two methods: direct method and indirect method.

The Table (4) show the outcome of the matching process under each situation for each company for XBRL Mapping for Consolidated Statement of changes in equity.

Table (1) XBRL Mapping for Consolidated Statements of Financial Position Classification of Elements

XBRL Mapping for Consolidated Statements of Financial Position																	
Status	Situation	Telecom Egypt (TE)				Global Telecom Holding S.A.E. (GT)				Orascom Investment Holding S.A.E. (OI)				Total			
		No of Elements	%	Total	%	No of Elements	%	Total	%	Total	%	Total	%	Total	%	Total	%
No Extension (fitness outcomes)	1	21	47%	28	62%	26	60%	33	77%	19	41%	29	63%	**66**	49%	90	67%
	2	1	2%			2	5%			10	22%			**13**	10%		
	3	6	13%			5	12%			-	-			**11**	8%		
Extension (Misfit outcomes)	4	1	2%	17	38%	-	-	10	23%	1	2%	17	37%	**2**	1%	44	33%
	5	1	2%			-	-			1	2%			**2**	1%		
	6	1	2%			-	-			2	4%			**3**	3%		
	7	14	32%			10	23%			13	29%			**37**	28%		
Total		45	100%	**45**	**100%**	43	100%	**43**	**100%**	46	100%	**46**	**100%**	**134**	**100%**	**134**	**100%**

The previous Table (1) shows the outcomes of the matching process under each situation for each company according to XBRL Mapping for Consolidated Statements of Financial Position based on current/non-current classification to determine the fitness outcomes and misfit outcomes between IFRS taxonomy based on current/non-current classification and financial reporting in Statements of Financial Position of the applied companies.

The classifications of Elements of XBRL Mapping for Consolidated Statements of Financial Position reveal the following outcomes:

- Fitness outcomes of consolidated statement of financial position of **Telecom Egypt (TE)** represent 28 elements with no extension out of total 45 elements with fitness percentage 62%.
- Fitness outcomes of consolidated statement of financial position of **Global Telecom Holding S.A.E. (GT)** represent 33 elements with no extension out of total 43 elements with fitness percentage 77%.
- Fitness outcomes of consolidated statement of financial position of **Orascom Investment Holding S.A.E. (OI)** represent 29 elements with no extension out of total 46 elements with fitness percentage 63%.
- Misfit outcomes of consolidated statement of financial position of **Telecom Egypt (TE)** represent 17 elements with extension out of total 45 elements with Misfit outcomes percentage 38%.
- Misfit outcomes of consolidated statement of financial position of **Global Telecom Holding S.A.E. (GT)** represent 10 elements with extension out of total 43 elements with Misfit outcomes percentage 23%.
- Misfit outcomes of consolidated statement of financial position of **Orascom Investment Holding S.A.E. (OI)** represent 17 elements with extension out of total 46 elements with Misfit outcomes percentage 37%.
- The average fitness outcomes in consolidated statements of financial position for all applied companies represent 90 elements out of total 134 elements with fitness outcomes percentage 67%.
- The highest fitness outcomes percentage (77%) is found in consolidated statement of financial position of **Global Telecom Holding S.A.E. (GT)**.
- The lowest fitness outcomes percentage (62%) is found in consolidated statement of financial position of **Telecom Egypt (TE).**

Table (2) XBRL Mapping for Consolidated Statement of Profit or Loss and Other Comprehensive Income - Classification of Elements

XBRL Mapping for Consolidated Statement of Profit or Loss and Other Comprehensive Income																	
Status	Situation	Telecom Egypt (TE)				Global Telecom Holding S.A.E. (GT)				Orascom Investment Holding S.A.E. (OI)				Total			
		No of Elements	%	Total	%	No of Elements	%	Total	%	Total	%	Total	%	Total	%	Total	%
No Extension (fitness outcomes)	1	20	72%	24	86%	19	54%	29	83%	18	60%	21	70%	57	61%	74	80%
	2	4	14%			3	9%			3	10%			10	11%		
	3	-	-			7	20%			-	-			7	8%		
Extension (Misfit outcomes)	4	-	-	4	14%	1	3%	6	17%	-	-	9	30%	1	1%	19	20%
	5	-	-			-	-			-	-			-	-		
	6	2	7%			5	14%			6	20%			13	14%		
	7	2	7%			-	-			3	10%			5	5%		
Total		28	100%	28	100%	35	100%	35	100%	30	100%	30	100%	93	100%	93	100%

The previous Table (2) shows the outcomes of the matching process under each situation for each company according to XBRL Mapping matching process of Consolidated Statement of Profit or Loss and Other Comprehensive Income based on function of expense for both Telecom Egypt (TE), and Orascom Investment Holding S.A.E. (OI). And Consolidated Statement of Profit or Loss and Other Comprehensive Income based on nature of expense for Global Telecom Holding S.A.E. (GT).

The classifications of Elements of XBRL Mapping for Consolidated Statements of Profit or Loss and Other Comprehensive Income reveal the following outcomes:

- Fitness outcomes of consolidated statement of Profit or Loss and Other Comprehensive Income of **Telecom Egypt (TE)** represent 24 elements with no extension out of total 28 elements with fitness percentage 86%.
- Fitness outcomes of consolidated statement of Profit or Loss and Other Comprehensive Income of **Global Telecom Holding S.A.E. (GT)** represent 29 elements with no extension out of total 35 elements with fitness percentage 83%.
- Fitness outcomes of consolidated statement of Profit or Loss and Other Comprehensive Income of **Orascom Investment Holding S.A.E. (OI)** represent 21 elements with no extension out of total 30 elements with fitness percentage 70%.
- Misfit outcomes of consolidated statement of Profit or Loss and Other Comprehensive Income of **Telecom Egypt (TE)** represent 4 elements with extension out of total 28 elements with Misfit outcomes percentage 14%.
- Misfit outcomes of consolidated statement of Profit or Loss and Other Comprehensive Income of **Global Telecom Holding S.A.E. (GT)** represent 6 elements with extension out of total 35 elements with Misfit outcomes percentage 17%.
- Misfit outcomes of consolidated statement of Profit or Loss and Other Comprehensive Income of **Orascom Investment Holding S.A.E. (OI)** represent 9 elements with extension out of total 30 elements with Misfit outcomes percentage 30%.
- The average fitness outcomes in consolidated statements of Profit or Loss and Other Comprehensive Income for all applied companies represent 74 elements out of total 93 elements with fitness outcomes percentage 80%.
- The highest fitness outcomes percentage (86%) is found in consolidated statement of Profit or Loss and Other Comprehensive Income of **Telecom Egypt (TE).**
- The lowest fitness outcomes percentage (70%) is found in consolidated statement of Profit or Loss and Other Comprehensive Income of **Orascom Investment Holding S.A.E. (OI)**.

Table (3) XBRL Mapping for Consolidated Statement of Cash Flows - Classification of Elements

XBRL Mapping for Consolidated Statement of Cash Flows by direct and indirect methods																	
Status	Situation	Telecom Egypt (TE)				Global Telecom Holding S.A.E. (GT)				Orascom Investment Holding S.A.E. (OI)				Total			
		No of Elements	%	Total	%	No of Elements	%	Total	%	Total	%	Total	%	Total	%	Total	%
No Extension (fitness outcomes)	1	9	26%	**19**	**56%**	13	36%	**30**	**83%**	12	26%	**21**	**46%**	**34**	**29%**	**70**	**60%**
	2	9	26%			11	30%			9	20%			**29**	**25%**		
	3	1	4%			6	17%			-	-			**7**	**6%**		
Extension (Misfit outcomes)	4	4	12%	**15**	**44%**	-	-	**6**	**17%**	-	-	**25**	**54%**	**4**	**4%**	**46**	**40%**
	5	2	6%			2	6%			1	2%			**5**	**4%**		
	6	9	26%			4	11%			16	35%			**29**	**25%**		
	7	-	-			-	-			8	17%			**8**	**7%**		
Total		34	100%	**34**	**100%**	36	100%	**36**	**100%**	46	100%	**46**	**100%**	**116**	**100%**	**116**	**100%**

The previous Table (3) shows the outcomes of the matching process under each situation for each company according to XBRL Mapping for Consolidated Statements of Cash Flows according to both direct and indirect methods classifications to determine the fitness outcomes and misfit outcomes between IFRS taxonomy based on direct and indirect methods and financial reporting in Statements of Cash Flows of the applied companies.

The classifications of Elements of XBRL Mapping for Consolidated Statements of Cash Flows reveal the following outcomes:

- Fitness outcomes of consolidated statement of Cash Flows of **Telecom Egypt (TE)** represent 19 elements with no extension out of total 34 elements with fitness percentage 56%.
- Fitness outcomes of consolidated statement of Cash Flows of **Global Telecom Holding S.A.E. (GT)** represent 30 elements with no extension out of total 36 elements with fitness percentage 83%.
- Fitness outcomes of consolidated statement of Cash Flows of **Orascom Investment Holding S.A.E. (OI)** represent 21 elements with no extension out of total 46 elements with fitness percentage 46%.
- Misfit outcomes of consolidated statement of Cash Flows of **Telecom Egypt (TE)** represent 15 elements with extension out of total 34 elements with Misfit outcomes percentage 44%.
- Misfit outcomes of consolidated statement of Cash Flows of **Global Telecom Holding S.A.E. (GT)** represent 6 elements with extension out of total 36 elements with Misfit outcomes percentage 17%.
- Misfit outcomes of consolidated statement of Cash Flows of **Orascom Investment Holding S.A.E. (OI)** represent 25 elements with extension out of total 46 elements with Misfit outcomes percentage 54%.
- The average fitness outcomes in consolidated statements of Cash Flows for applied companies represent 70 elements out of total 116 elements with fitness outcomes percentage 60%.
- The highest fitness outcomes percentage (83%) is found in consolidated statement of Cash Flows of **Global Telecom Holding S.A.E. (GT)**.
- The lowest fitness outcomes percentage (46%) is found in consolidated statement of Cash Flows of **Orascom Investment Holding S.A.E. (OI)**.

Table (4) XBRL Mapping for Consolidated Statement of Changes in Equity - Classification of Elements

XBRL Mapping for Consolidated Statement of Changes in Equity																	
Status	Situation	Telecom Egypt (TE)				Global Telecom Holding S.A.E. (GT)				Orascom Investment Holding S.A.E. (OI)				Total			
		No of Elements	%	Total	%	No of Elements	%	Total	%	Total	%	Total	%	Total	%	Total	%
No Extension (fitness outcomes)	1	13	18%	29	41%	13	18%	22	31%	14	20%	27	38%	**40**	**19%**	78	37%
	2	4	6%			-	-			3	4%			**7**	**3%**		
	3	12	17%			9	13%			10	14%			**31**	**15%**		
Extension (Misfit outcomes)	4	-	-	42	59%	1	1%	49	69%	-	-	44	62%	**1**	**0.5%**	135	63%
	5	5	7%			2	3%			2	3%			**9**	**4%**		
	6	1	1%			1	1%			1	1%			**3**	**1%**		
	7	36	51%			45	64%			41	58%			**122**	**57.5%**		
Total		71	100%	**71**	**100%**	71	100%	**71**	**100%**	71	100%	**71**	**100%**	**213**	**100%**	**213**	**100%**

The previous Table (4) shows the outcomes of the matching process under each situation for each company according to XBRL Mapping for Consolidated Statements of Changes in Equity to determine the fitness outcomes and misfit outcomes between IFRS taxonomy of Consolidated Statements of Changes in Equity and financial reporting in Statements of Cash Flows of the applied companies.

The classifications of Elements of XBRL Mapping for Consolidated Statements of Changes in Equity reveal the following outcomes:

- Fitness outcomes of consolidated statement of Changes in Equity of **Telecom Egypt (TE)** represent 29 elements with no extension out of total 71 elements with fitness percentage 41%.
- Fitness outcomes of consolidated statement of Changes in Equity of **Global Telecom Holding S.A.E. (GT)** represent 22 elements with no extension out of total 71 elements with fitness percentage 31%.
- Fitness outcomes of consolidated statement of Changes in Equity of **Orascom Investment Holding S.A.E. (OI)** represent 27 elements with no extension out of total 71 elements with fitness percentage 38%.
- Misfit outcomes of consolidated statement of Changes in Equity of **Telecom Egypt (TE)** represent 42 elements with extension out of total 71 elements with Misfit outcomes percentage 59%.
- Misfit outcomes of consolidated statement of Changes in Equity of **Global Telecom Holding S.A.E. (GT)** represent 49 elements with extension out of total 71 elements with Misfit outcomes percentage 69%.
- Misfit outcomes of consolidated statement of Changes in Equity of **Orascom Investment Holding S.A.E. (OI)** represent 44 elements with extension out of total 71 elements with Misfit outcomes percentage 62%.
- The average fitness outcomes in consolidated statements of Changes in Equity for applied companies represent 78 elements out of total 213 elements with fitness outcomes percentage 37%, which represents the lowest fitness percentage compared with the other consolidated statements of financial position, profit or loss & other comprehensive income, and cash flows.
- The highest fitness outcomes percentage (41%) is found in consolidated statement of Changes in Equity of **Telecom Egypt (TE)**.
- The lowest fitness outcomes percentage (31%) is found in consolidated statement of Changes in Equity of **Global Telecom Holding S.A.E. (GT)**.

The following Table (5) describes the common outcomes of XBRL mapping, matching process with IFRS Taxonomy for year 2021, and classification of elements for four basic financial statements of the applied companies.

Table (5) The Common Outcomes of XBRL Mapping, Matching Process with IFRS Taxonomy for year 2021, and Classification of Elements for four basic financial statements of the applied companies

	Consolidated Statement of Financial Position	**Consolidated Statement of Profit or Loss and Other Comprehensive Income**	**Consolidated Statement of Cash Flows**	**Consolidated Statement of Changes in Equity**
(Fitness Outcomes) Fitness between IFRS taxonomy and financial reporting	**67%**	**80%**	**60%**	**37%**
(Misfit Outcomes) Misfit between IFRS taxonomy and financial reporting	**33%**	**20%**	**40%**	**63%**

As illustrated in the above table, the highest common fitness outcomes percentage is found in **Consolidated Statement of Profit or Loss and Other Comprehensive Income,** with 80% of Fitness between IFRS taxonomy and financial reporting.

The lowest common fitness outcomes percentage is found in **Consolidated Statement of Changes in Equity,** with 37% of Fitness between IFRS taxonomy and financial reporting.

9. Conclusion

In the Egyptian environment, XBRL is not implemented. Information consumers spend much time in inserting and reviewing data before analysis. Companies submit their reports to EFSA in a paper format. EGX accepts companies' financial reports in PDF. Prior Egyptian studies, through surveys, found that using XBRL could reduce the cost of processing information; improve financial reporting comparability; increase the quality of electronic financial reports, and improve the efficiency of Egyptian Capital Market.

None of the previous studies measured the percentage of fit between IFRS Taxonomy and Egyptian companies reporting practices. This study contributes to the literature by providing a framework based on the bolt-on approach that comprises: XBRL implementation process. Moreover, it is considered as the first study done in Egypt in evaluating the degree of fit between IFRS Taxonomy and IFRS financial reporting practices.

The applied study handles three companies working in the telecommunication industry, Global Telecom, Telecom Egypt, and Orascom investment which publish their IFRS financial reporting in PDF format. The researcher focuses on the four basic financial statements to measure the percentage of fit between Egyptian IFRS Financial reporting practices and IFRS Taxonomy 2021.

Findings revealed that the highest common fitness outcomes percentage is found in Consolidated Statement of Profit or Loss and Other Comprehensive Income, with 80% of Fitness between IFRS taxonomy and financial reporting.

The lowest common fitness outcomes percentage is found in Consolidated Statement of Changes in Equity, with 37% of Fitness between IFRS taxonomy and financial reporting.

The implementation of XBRL using IFRS taxonomy leads to develop the accounting disclosure and enchasing the quality of information through:

- improving information relevance (confirmatory value, predictive value, and materiality)
- improving information reliability (faithful representation) through improving (completeness of information, neutrality of information, and free from error information).
- improving information comparability.
- improving information verifiability.
- improving information timeliness.
- improving information understandability

there is a statistically significant relationship between the proposed framework for applying XBRL using IFRS Taxonomy and the development of accounting disclosure

10.Recommendations

The researcher recommends the following points:

- Several risks should be considered, if regulators plan to implement XBRL, to ensure the successful implementation of XBRL. Further, Egypt should join XBRL organization to harness the experience of XBRL adoption.
- The importance of participation by different stakeholders (i.e. accountants, software companies, regulators, the academic community, auditors, investors, data aggregators and any other related parties) in XBRL adoption because of its shared responsibility.
- The researcher suggests forming a team for searching the possibility of developing EAS Taxonomy based on IFRS Taxonomy.
- The academic community in Egypt should provide more case studies related to XBRL adoption to increase the level of awareness among the Egyptian business community.

11.Suggestions for Future Research

Several Suggestions for future research in XBRL in the Egyptian environment.

- Exploring the level of XBRL awareness among different stakeholders (i.e. financial analysts, academics, regulators, software developers, auditors, investors etc.).
- Identifying why XBRL has not adopted in the Egyptian environment and the main obstacles that could face its adoption.
- Expanding the current applied study to include other financial statements and other companies within different sectors to identify the degree of fitness between IFRS Taxonomy and IFRS financial reporting
- Performing a study between different investors to evaluate the effect of XBRL adoption on investing decision.

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