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Sustainability Reporting Pattern in Pharmaceutical Sector : A Study of Top 10 Economies across the Globe

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ABSTRACT

Sustainability reporting is now a mainstream activity of global corporations and is an important issue of the decade. Transparency and accountability for stakeholders are most demanding issues in pharmaceutical sectors. Companies or Industries can't survive without sustainable growth. Since, most of the stakeholders are aware of recent problems such as community health, climate change, education and development, business sustainability etc., the demand for disclosures in these areas have also been remarkably increased. Global companies have started reporting on sustainability disclosure for both economic and non-economic activities such as Triple Bottom Line (TBL) reporting along with accountability of external and internal stakeholders towards the goal of sustainable development. This paper examines the sustainability reporting practices of pharmaceutical companies of top 10 economies across the globe. For this purpose, sustainability reports of pharmaceutical companies of top 10 economies based on Global Reporting Initiative (GRI) and Non- GRI guidelines for 5 years (2012 to 2016) were collected from the GRI-Database. The number of pharmaceutical companies along with country name that published sustainability reports has been classified into four categories such as companies with GRI reports published for 5 years, less than 5 years, Non-GRI reports and mixed reports (GRI &Non-GRI) a total number of sustainability reports published in the given time period were compiled and analyzed. The results revealed that the sustainability disclosures in Pharmaceutical sector are basically dominated by the countries like USA, Brazil, and China whereas, least performing in sustainability disclosure parameter are Canada, Italy, Germany and India.

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INTRODUCTION

Sustainability is one of the most challenging issues nowadays. In the era of the cut-throat business world, companies tries to get the maximum profit on the cost of degradation of the environment, society, and economy. Sustainable development means "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (UNED, 1987). Elkington (1994) had coined a term "Triple Bottom Line (TBL)," which measures the corporate performance in the term of profit, people, and the planet. They communicate the idea behind this concept to maximizing of profit along with improvement in the liv-

ing standard of human being and save our biodiversity.e. the planet as well. Pharmaceutical industries play an eminent role in the development of global economies, which contributes 7 to 10 percent in the development of the GDP of the top 10 economies of the globe. A well-functioning pharmaceutical industry can contribute directly to social wellbeing, and also, its contribution towards the economies, society and environment would lead to sustainable development across the globe.

Governance

Good governance help in the smooth functioning of an organization. Effective and safe selection, procurement, storage, and delivery ensure good governance in the pharmaceutical sector. Good governance can be explained in such that it is consensus-oriented, accountable, and transparent to society, equitable and inclusive, effective and efficient, follows the rule of the land, and is participatory (Strachan, 2013; ESCAP, 2009). Good governance can be achieved when there is a negligible corruption practices in the public and private sectors. Moreover, it is crucial in maintaining the adequate distribution of essentials medicine in the public domain so that medicine can easily access by the deprived patients and there can be a protection against the illegal promotion of Pharma commodities and also ensuring medicines are safe for public consumption (Mackey and Liang, 2011; Cohen et al., 2007).

Economic

A report of*IFPMA* revealed that how the Pharma sector adds value to the global GDP. This report also disclosed that GDP value increased by an average of 6% year-on-year (2006 to 2012). It was approaching to $437 billion in 2012. WifOR, AGerman research institute in their study, found that 4.4 million people got employed by Pharma industries Wright (2015). It was found that Asia's contributed $163.3 billion to GDP value, which was the largest share of global GDP that was followed by Europe and North America at $134.8, $105.3, respectively. In another report, *IFPMA* has revealed how the Pharma industry is boon for global economies and continues to boost the global economy across the regions.

Environmental

Climate change is one of the recent problems faced by living being across the globe. Temperature is rising year-by-year; snows are melting, that creates a flood in the coastal region. Water, Air, Soil pollution are also challenging for society. Nowadays, the Pharma sector is also generating so many different types of pollution for our biodiversity. Pharmaceutical market growing year-on-years that results to growth in pharmaceutical production with it environmental concern pertaining to consumer waste and disposal. According to the US Department of Health and Human Services reports at least 50% of the American takes minimum one prescription drug, one in six taking three or more. There is a problem of the disposal of unused medicine all over the world. Where does it end up? Medicines, which are not disposed of properly convert into toxic waste and goes into water streams and drinking water that has a negative impact on a human being, wildlife, and agriculture.

Social

Companies are working for the welfare of the society, but without generating adequate profit, the existence of a company is in a question mark. It is impossible for an organization to sustain in the long run because there will be no research due to paucity of funds. Pharma sector organizations are engaged in various types of innovation activities in order to reduce the price of medicine and drugs for that they need a large amount of money to be invested in innovation, which won't be possible without earning a surplus profit. So, all Pharma companies are not having the prime motive to earn a profit so as to invest in other sectors, for example, Novo Nordisk is a proactive firm, acting on prevention, diagnosis, and treatment of diabetes with the help of the government of some countries like India, Indonesia, and Bangladesh. Novartis has set up a modern distribution and sales network all over the rural part of India that has a portfolio of essential medicine for the purpose of easily access to socially backward people.

Literature Review

In the past decade, it was found that there were so many evidence that shows greater vulnerability to the corruption that affects the access to medicine and health services to socially backward people (Wright, 2015; Tiongson et al., 2000). In a hospital personnel survey, in Venezuela, it was found that approximately 66 percent of staff were aware about the theft of medical supplies and medications (Jaén and Paravisini, 2001). Amnesty International in its studied on maternal health in Burkina Faso found that thousands of pregnant women affected by annual mortality due to no governance in health care delivery or high level of corruption in health professionals (Amnesty International, 2010). Socially backward women can't afford the informal fee to access the critical health care services. Jointly, all of the above-mentioned case studies show the forms of corruption in the pharmaceutical and healthcare delivery system that can lead to a brain drain of health care workers (Mackey and

Liang, 2012). The swift deregulation and decentralization in many transition economies within the pharmaceutical sector, mixed with volatile political and economic environments, creates governance vulnerabilities in the health sector. In precise, the procurement practices were liable to undue impact in the course of drug selection, kickbacks or bribes that enabled bidders' to get right of entry to confidential information and use of direct procurement in place of competitive bidding (Neveleff, 2007). Pharmaceutical sector nowadays is creating so much pollution that is a threat to ecosystems and human health globally. Toxic waste coming from pharmaceutical sectors are entering to the environment at all the stages of our life cycle, such as production, use, and disposal. It is ultimately entered in our drinking water, accumulating in vegetables and fish. Toxic waste coming from pharmaceutical have been found in surface water, sewage effluents, groundwater, drinking water, manure, soil, and other ingredients of environment all over the globe (BIO Intelligence Service, 2013; Deloitte, 2016). One of the biggest public health concerns recognized by the United Nations Environment is the development of antimicrobial resistance (AMR) due to the discharge of toxic waste coming from pharmaceutical into the environment that we are facing these days (UN Environment, 2017). Scientists are analyzing the impact of these tablets on ecosystems, and are looking for ways of stopping the hassle, as an example by appropriate disposal of unwanted medicines, enhancing the treatment of sewage and, ultimately, designing more environmentally friendly pills. "It's an actual, growing problem, and it's handiest going to get worse as the arena's population a while (Gwynne Lyons). Pharmaceutical-biotechnology industries show a great level of competition due to the high level of entry in the market. Patents in the pharma sector leads to a monopoly of the originators firms to recover the cost that were incurred on Research and Development. It was observed patents bar can't prevent the entry of competitors that develops products that are generically equivalent for the patient life. So, neither natural monopoly nor patents can regulate pharma prices. The biggest source of pharmaceutical pollution is pharmaceutical productions that are further exacerbated by weakly environmental legislative law in countries like India and China (Bad medicine, 2015). Several studies found that resistant bacteria are produced by polluting factories and exporting to European Union markets where drugs are sold to EU-based health care service providers and buyers (Laxminarayan et al., 2013).

Objective of the study

1. To study the sustainability reporting disclosures pattern in the pharmaceutical sector of the top ten economies across the globe.

2. To study the impact of sustainability practices of the pharmaceutical industry on governance, social, economic, and environment.

RESEARCH METHODOLOGY

Top 10 countries by economy all over the world are considered for the comparative analysis of their sustainability disclosure reports published by pharmaceutical companies. According to the IMF/World Bank, the top 10 economies across the world are such as USA, China, Japan, France, UK, India, Germany, Italy, Brazil, and Canada. Sustainability reports either GRI or Non-GRI published by pharmaceutical companies belonging to these countries are studied by the researcher. The researcher focus on counting the number of sustainability reports, either GRI or Non-GRI was published in the last five years, from 2012 to 2016. The reason behind selecting this time frame, sustainability reports available on the GRI Database is up to 2016. During the data collection, it was focus on the following points such as number of company published GRI reports for five years, how many companies are published GRI reports less than 5 years, how many companies published report on Non-GRI framework and how many companies published their sustainability reports on both GRI & Non- GRI framework during the period. Data fetched from GRI Database is presented in Table **??**.

RESULTS AND DISCUSSION

Sustainability reporting pattern between countries and the number of companies

It is found that the highest percentage of companies discoursing in the Pharma sector is the USA, 33% followed by Brazil, 18% and China 17%. The lowest number of companies disclosing in the Pharma sector are Canada, Italy. While comparing Nominal GDP among the countries, the USA, China, and Brazil, which have a higher number of reports. It is \$20.49 trillion(1st position), \$13.41 trillion (2nd position) and \$1.87 trillion (9th position) respectively across the globe.

Sustainability reporting pattern between Countries and GRI Reports published for complete 5 years

In the above-given pie, chart data shows that the complete 5 years GRI reports published by the top 10 economies across the globe. It is found that the

Table 1: Name of Top 10 Economy along with GRI & Non-GRI Reports published in pharmaceutical sector from 2012 to 2016

Name of countries	Total No. of Companies	GRI(last5years reporting's)	GRI (less than 5 years reporting's)	Non-GRI Reports	Both GRI & Non- GRI Reports	Total No of Reports
India	11	1	1	9	1	21
China	36	8	8	20	1	78
USA	69	18	14	26	11	221
UK	12	1	0	7	4	46
Japan	13	7	1	2	3	61
France	22	1	0	19	2	51
Germany	9	0	3	4	2	24
Italy	1	0	1	0	0	3
Brazil	38	13	22	1	2	130
Canada	1	0	2	0	0	2

Source: Authors' compilation from GRI database (https://database.globalreporting.org/)

USA pharmaceutical companies have a percentage share of 37, Brazil pharmaceutical companies percentage share is 27, and China pharmaceutical companies percentage share is 16. However, Canada, Italy, Germany, pharmaceutical companies have 0% share, and India, UK, France pharmaceutical companies have 1% share while comparing with above pie chart (Figure 1 and Figure 2) it is observed that the higher percentage of GRI reports published pattern for complete 5 years are similar to higher number of pharmaceutical companies published sustainability reports.
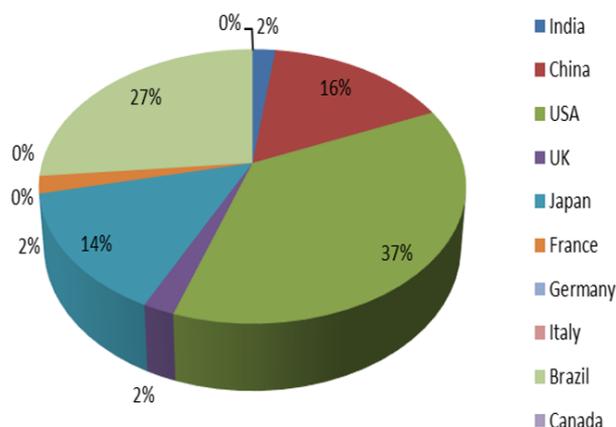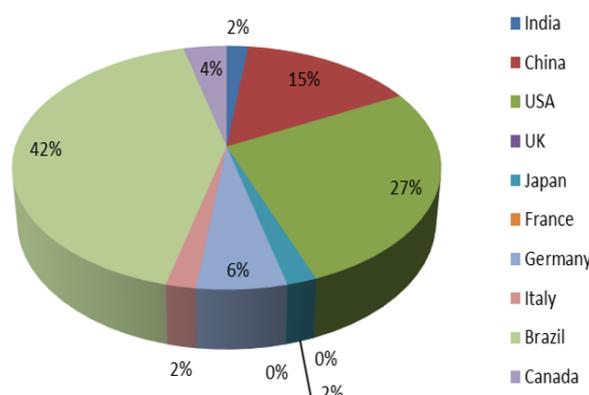

Figure 2: Total GRI reports published in the last 5 years by Top 10 Economy's pharmaceutical companies in terms of percentages.
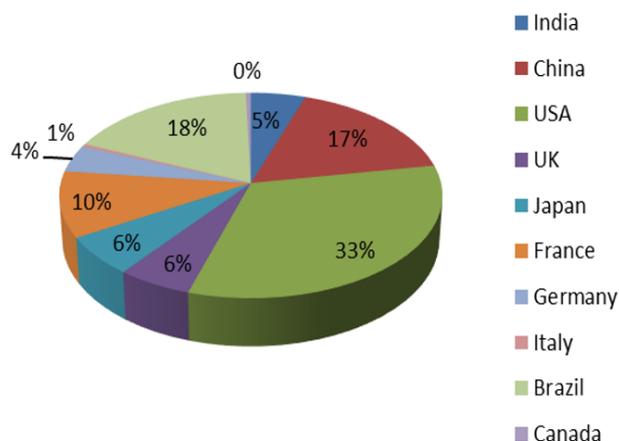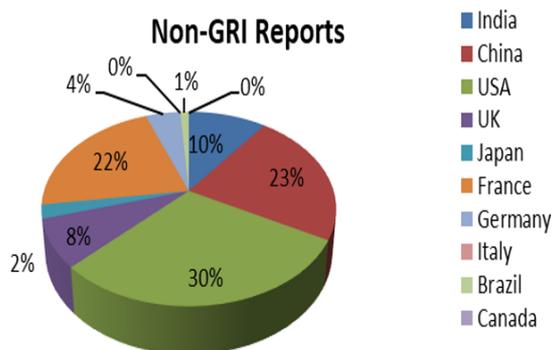

Figure 1: Total number of pharmaceutical companies reporting sustainability reports annually in terms of percentages

Sustainability reporting pattern between Countries and GRI Reports published less than 5 years

The pie chart presented in Figure 3 shows that total GRI reports published for less than 5 years by Top 10 Economy's pharmaceutical companies. It is

Figure 3: Total GRI reports published for less than 5 years by Top 10 Economy's pharmaceutical companies in terms of percentage.

Figure 4: Total Non-GRI reports published by Top 10 Economy's pharmaceutical companies in terms of percent
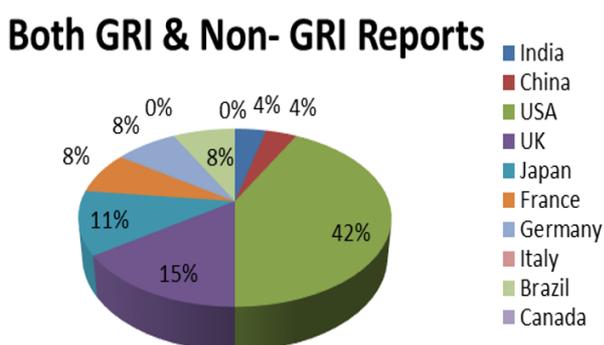
Figure 5: Total GRI & Non-GRI reports published by Top 10 Economy's pharmaceutical companies in terms of percentage

observed that a higher percentage of reports published by Brazil percentage of share is 42, the USA percentage of share is 27, and China's percentage of chare is 15. However, the UK and France percentages are 0 and India, Italy and Japan have 1%. While comparing with their Nominal GDP, Brazil at 9th position, the USA at 1st position and China at 2nd position.

Sustainability reporting pattern between Countries and Non- GRI Reports published from 2012 to 2016

The pie chart in Figure 4 shows that the total number of Non-GRI reports published by Top 10 Economy's pharmaceutical companies in terms of percent. It has found that the higher reports published by the USA, China and Japan which are 30%, 23%& 22% respectively. However, Canada & Italy Non-GRI reports published percentage share are 0, Brazil percentage share is 1. While comparing with their Nominal GDP, it has observed that the ranks for reports published by these three countries are similar to their Nominal GDP order.

Sustainability reporting pattern between Coun-

tries and both GRI &Non-GRI Reports

The pie chart in Figure 5 shows that sustainability reporting patterns between countries and both GRI &Non-GRI Reports. It has been found that the higher number of reports that have been published by the countries in the USA, the UK, and Japan, which are 42%, 15%, and 11%, respectively. However, Italy and Canada have 0% reports published while India and China have 1% reports published. However, comparing with their Nominal GDP ranks the USA at 1st, the UK at 5th, and Japan at the 3rd position.

CONCLUSIONS

Sustainability reports based on GRI framework published in pharmaceutical sector of top ten global economies across the globe has been studied for the period of 05 years (2012 to 2016), and findings reveals that the utmost sustainability reporting disclosing countries on pharmaceutical industries is USA, followed by Brazil and China. However, least sustainability reporting disclosing countries are Italy and Canada for the given period. It means pharmaceutical companies in USA, China and Brazil are more conscious about the sustainability reporting as compare to rest of the countries of top 10 economies in the world. The sustainability reporting practices by the pharmaceutical companies must be a made mandatory for all countries across the globe to follow one common standard framework for publishing sustainability reports in line with IFRS for financial reporting which will help stakeholders to fetch true and fair information about the performance of the reporting companies.

Recommendation

Based on the findings of the study, the researchers recommend to international accounting body to develop a common agreed framework such as GRI framework that would be acceptable all over the world for reporting on sustainability related to disclosure by the companies.

Limitation and Future scope

In this study, researchers have considered the sustainability reporting by pharmaceutical sector of top 10 economies across the globe and their sustainability reports for the period of five years (2012 to 2016) were considered for analysis. Further research can be carried out with more number of companies as well as for an extended time period.

Conflict of Interest

The authors declare that there is no conflict of interest in the present work.

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Self

Ethical Clearance

N/A

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