ASIAN JOURNAL OF PHARMACEUTICAL AND CLINICAL RESEARCH

NNOVARE
ACADEMIC SCIENCES
Knowledge to Innovation

Vol 9, Issue 2, 2016

Online - 2455-3891 Print - 0974-2441 Review Article

THE MORAL CALCULUS OF PHARMA COMPANIES IN INDIA

CRESENTA SHAKILA MOTHA L1*, NALINI R2, ALAMELU R2, AMUDHA R2

¹Department of Training & Placement, SASTRA University, Thanjavur, Tamil Nadu, India. ²School of Management, SASTRA University, Thanjavur, Tamil Nadu, India. Email: cresenta@sastra.edu

Received: 24 December 2015, Revised and Accepted: 30th January, 2016

ABSTRACT

To comprehend whether corporate social responsibility (CSR) in pharma is more of a corporate hypocrisy where firms and organizations tend to marginalize their employees and the environment at large. The present study is case based, and an attempt has been made to analyze probable driving reasons behind the corporate behavior exhibited by pharma industries. CSR is understood differently by different beneficiaries but usually refers to serving the citizens, population of communities, and the larger society in a way that goes beyond what is legally required of a firm. Though numerous programs and schemes have been launched for their upliftment, it is all an eye wash which is intended for the internal benefit of the organization. Corporate these days, as per the Companies Act should report spend of 2% of their profits as pronounced in the CSR and pharmaceutical companies are no exemption to it. As per Section 135 of the Companies Act 2013, it is recommended that companies having revenue above Rs. 1,000 crore and profit more than Rs. 5 crore should report what they spend for CSR. Companies these days often utilize CSR as a brand building exercise, engagement of employees, helping the local community around their firm, or even as a fame generating spot for the themes of the chairman's spouse. Thus, it is obvious that the social responsibility of pharmaceutical business sector is mainly to increase their profit, increase their shareholder activism, and investment in the community.

Keywords: Corporate social responsibility, Hypocrisy, Pharmaceutical industries, Society and organization.

INTRODUCTION

Corporate social responsibility (CSR) is an emerging expression that has no benchmark definition or a completely acknowledged meaning with standard criteria. This CSR in the business arena plays a key role on occupation and wealth formation in society; CSR is very frequently understood to be the way a firm strikes a balance or amalgamation of economic, environmental, and social imperatives while at the same time addresses the shareholder and stakeholder outlook. CSR is normally accepted as applying to firms wherever they function in the domestic and global economy. The way businesses engage/involve the shareholders, employees, customers, suppliers, governments, nongovernmental organizations, international organizations, and other stakeholders are usually a key feature of the concept. While business compliance with laws and regulations on social, environmental, and economic objectives set the official level of CSR performance, CSR is often regarded as concerning the private sector commitments and performance that expand beyond the base of conformity with laws.

CSR is understood differently by different beneficiaries but usually refers to serving the citizens, population of communities, and the larger society in a way that goes beyond what is legally required of a firm. From a progressive business standpoint, CSR usually involves focusing on new opportunities as a way to respond to interrelated economic, societal, and environmental demands in the marketplace. Most of the firms consider that this focus provides a crystal clear competitive benefit and stirs corporate innovation. CSR is by and large seen as the business donation to building a sustainable society which has been distinct as "development that meet the needs of the present without compromising the ability of future generations to meet their own needs," and is focused to achieve the amalgamation of economic, environmental, and social imperatives. The concept of CSR is seen to overlap and is synonymous with many terms such as corporate stewardship, corporate citizenship, corporate responsibility, corporate accountability, and corporate sustainability.

CSR-related activities in pharmaceutical companies concern around health and disaster, environmental sustainability and preservation, health, critical and palliative care, education and awareness building, drug trials and insurance coverage, human rights, human resource management practices, corporate governance, community development, protection of consumers, labor protection, supplier relations, business ethics, and stakeholder rights. Corporations are motivated to involve stakeholders in their decision-making and to address societal issues since today's stakeholders are increasingly responsive to the impact of corporate decisions on society and their environment at large. The stakeholders can reward or punish corporations. Corporations can be motivated to change their corporate behavior in response to the business case which a CSR approach potentially promises. This includes:

- Increased monetary performance and profitability (e.g., through eco-efficiency),
- Enhanced accountability and assessments from the investing community,
- Improved commitment and loyalty from the employees,
- Reduction in liability as a result of stronger relations with communities, and
- 5. Improved repute and branding.

In the recent years, CSR is more of a corporate hypocrisy where firms and organizations tend to marginalize their employees and the environment at large. Though numerous programs and schemes have been launched for their upliftment, it is all an eye wash which is intended for the internal benefit of the organization. Corporate these days, with reference to the Companies Act says ought to spend 2% of their profits as deploy in CSR. According to Section 135 of the Companies Act 2013, all companies with revenues above Rs. 1,000 crore and profit more Rs. 5 crore should spend on CSR. Companies most of the times use CSR as brand building exercise, engagement of employees, helping the local community around their concern, or even as a parking spot for the pet themes of the chairman's spouse. Thus, it is obvious that the social responsibility of business sector is mainly to increase their profit, increase their shareholder activism, and investment in the community. In this study, an attempt has been made to analyze probable driving reasons behind the corporate behavior exhibited by an organization.

CSR AND PHARMACEUTICAL COMPANIES IN INDIA

The companies' bill which was passed in the Lok Sabha on December 18, 2012, has clearly indicated that the pharma industries in India will have to spend between Rs. 300 and 325 crore in the years to come as

a part of their CSR. Though few of the pharmaceutical companies have initiated activities and programs corresponding to the CSR not many have taken it seriously. In an article by the Pharmabiz review, nearly 79 pharmaceutical companies are yet to spend two per cent of their average net profits on social activities which account to Rs. 325 crore. It has been also estimated that 30 Indian companies clocked net sales of over Rs. 1,000 crore during 2011-12, and these companies achieved aggregate net sales of Rs. 96,957 crore. With Ranbaxy topping with net sales of Rs. 9, 958 crore, additionally, 32 companies recorded net worth (equity capital plus reserves and surplus) of Rs. 500 crore or more in 2011-12 and 79 companies jagged up an average net profit of over Rs. 5 crore during last 3 years. Several Indian pharma companies are contributing to improve lives and create a healthier world under CSR objectives. Further, major companies instituted a Whistle Blower Policy. which empowers employees to raise their concerns or highlights issues if there are any discriminatory or gender-biased conducts, fraudulent business practices, unethical behavior, or violation of Code of Conduct. Indian majors, such as Dr. Reddy's Laboratories (DRL), Biocon, Lupin, Cadila Healthcare, and Jubilant Life sciences, are already engaged in CSR activities. Even multinational companies, such as Ranbaxy Laboratories, Glaxo Smith Kline Pharma, and Pfizer, are making investments under CSR [1].

Ranbaxy has created a core group of 93 persons including 33 medical officers, 37 auxiliary nurse midwives, and other paramedics and 19 support staff enable to operate 18 mobile healthcare vans and on urban family welfare center, providing services to over to 6.50 lakhs people in the northern and central parts of India. The company initiated Ranbaxy Sanjeevan Swasthya Sewa, a public private partnership between the Punjab State governments during 2010. The focus is mainly on primary healthcare and prevention and early detection of commonly found cancers of the cervix, breast, and oral cavity. The program covers a total population of about 4.50 lakh in around 180 villages in Punjab.

DRL has set up Dr. Reddy's Foundation (DRF) during 1996 as a nonprofit arm. DRF plays the role of a change agent in the social sector, by recognizing and pursuing new opportunities to serve that mission and by engaging in a process of continuous innovation adaptation and learning. Cadila Healthcare has promoted CSR program under Zydus Srishti. Its CSR activities are focused on the three core areas of Swasthya (Health, Safety, and Environment). Shiksha (Education and Shodh [Research]). Over the last 17 years, these CSR initiatives have helped the company to translate its mission to create healthy and happy communities in reality. Biocon, thorough Biocon Foundation, has implemented CSR in several districts of Karnataka with its focus on critical health areas which is often neglected reduced awareness levels. It has initiated a research study in Kaladgi, Bagalkot to study whether an integrated approach to anemia management will help women to maintain higher levels of hemoglobin, consistently. The company is has also planned to start Tobacco Cessation Centers in all its clinics. The nine Arogya Raksha Clinics continue to provide clinical services to the communities that surround it treating over $63,\!000$ patients in 2011-12.

Lupin, through its Lupin Human Welfare and Research Foundation is supporting the cause of rural development initiatives to over 25 lakhs people across 3,000 villages in the State of Rajasthan, Madhya Pradesh, Maharashtra, and Uttarakhand in India with its mission of uplifting the lives of "1 Crore" people residing in rural India above the poverty line.

Glaxo Smith Kline Pharma as its CSR continues its services toward social development and implementing rural development initiatives through Gramin Arogya Vikas Sanstha in Nashik and has extended support to Institute for Indian mother and child, a non-government organization reaching out to 1.30 lakhs patients in Kolkata. It also supports four voluntary organizations for cancer care [1].

THE NEGATIVE SIDE OF CSR IN PHARMACEUTICAL COMPANIES

Milton Friedman along with his associates has argued that a corporation's principle is to maximize returns to its shareholders and that obeying

the laws of the jurisdictions within which it operates constitutes socially responsible behavior [2]. While some CSR supporters claim that companies practicing CSR, especially in developing countries, are less likely to exploit workers and communities, critics claim that CSR itself imposes outside values on local communities with unpredictable outcomes [3]. Better governmental regulation and enforcement, rather than voluntary measures, are an alternative to CSR that moves decisionmaking and resource allocation from public to private bodies. However, critics claim that effective CSR must be voluntary as mandatory social responsibility programs regulated by the government interferes with people's own plans and preferences, distorts the allocation of resources, and increases the likelihood of irresponsible decisions [4]. Some critics consider CSR programs carried out by companies are mainly to distract the general population from ethical questions posed on their core operations. They squabble that the reputational benefits that CSR companies receive and demonstrate the hypocrisy of the approach [5]. According to Porter and Kramer (2002), most of the business and corporate are involved in philanthropic activities and programs in all most all sectors under the banner of CSR [6]. It is seen that CSR is gaining momentum of harnessing the business arena and the global community with its objectives and interests dovetailed for the benefit of the large as seen the United Nations Global Compact on Corporate Sustainability [7]. It has been found by Leisinger (2005) that pharmaceutical companies and their businesses are directly linked to the welfare of the population and their decision on business has a tremendous impact on the well-being of the human and, therefore, CSR becomes necessary. These firms have been critically viewed for fixing high prices for their products on life-saving drugs and slowness in response to the demands of the poor populations [8]. In relation to it, in the recent past two decades, companies engaged in pharmaceutical products have considerably enlarged CSR efforts, particularly for the low and middle-income countries that have their majority being affected by diseases in the global scenario [9,10]. The HIV/AIDS pandemic has recently exaggerated the pressures to actively work to promote societal well-being [11]. In a study by Hwang (2012), it has been highlighted that pharmaceutical companies have been criticized for using CSR to mend compromised reputations or to undo public viewpoint on their commercial happenings being unethical [12]. Many papers have explored as to whether pharmaceutical companies have taken into consideration their obligation toward human rights [13-16], in spite of all studies, there is a limited literature which focuses on CSR comprehensively, instead focusing on the pricing of drugs and licensing and product patency. There is limited literature on global health and CSR [17,18].

FACTS ON NEGATIVE IMPACT OF CSR IN PHARMACEUTICAL COMPANIES

Business Standard of Delhi front-paged a story that pharmaceutical multinationals Novartis, Pfizer, Bayer, Bristol-Myers Squibb were involved in clinical trials in India that killed 438 people in 2011. Quoting data from the Drugs Controller General of India (DCGI), the newspaper listed the companies and the fatalities that resulted in the trials of each of these companies which also included a handful of domestic drugs manufacturers [19]. Most pharmaceutical companies conduct trials through Contract Research Organizations, which have mushroomed to take advantage of this booming business opportunity. Its market in India has grown from Rs. 423 crore in 2005 to Rs. 1,611 crore in 2010. It is expected to cross Rs. 2,721 crore by 2012, says Centre for Research on Multinational Corporations (SOMO). Investigators in private hospitals are paid much more. Money ranges from Rs. 70,000 to Rs. 1 lakh per patient. Regulatory authorities have no control over contract research organizations (CROs). They are not mentioned in Drugs and Cosmetics Act and are not required to get registered. These organizations have mushroomed on their own to make money [20]. A government panel, which probed seven deaths due to human papillomavirus vaccine in Andhra Pradesh and Gujarat, stated in its report there was no mention of insurance cover in the pharmaceutical company's trial protocol. "Instead of giving insurance cover to girls, non-profit PATH which

conducted the trials got insurance cover for itself," says Brinda Karat, Rajya Sabha member. These grave issues clearly indicate that there still exist inadequacies in the approval process and responsibilities of the approval bodies including the Ethics Committees [21]. It is also reported that no progress has been made to enforce stringent regulations regarding clinical trials in India. The bill drafted in 2002 based on the guidelines of the Indian Council of Medical Research and submitted in 2007 to the Ministry of Health and Family Welfare has not taken this issue into consideration as the government is pressurized by the pharmaceutical industries. The article has also highlighted that unlike in the Western countries; the guilty is never punished in India [22]. CSIR sanctioned a project on "Process for Tamiflu-a drug to combat the menace of avian flu" implemented by the National Chemical Laboratory, Pune with a budget allocation of Rs. 25 lakh for a duration of 6 months. The project geared up as a result of threat of bird flu pandemic in the country. CSIR aimed to develop the process for the indigenous production of Tamiflu drug used in the treatment of bird flu, so as to become self-reliant in drug production and stockpile sufficient quantity. As there was already a patented process for the production of Tamiflu, CSIR took up the project to develop a non-infringing process for development of the drug as reported by the Comptroller and Auditor General of India (CAG). The Indian Institute of Chemical Technology, Hyderabad was included as a partner with an additional allocation of Rs. 25 lakh. However, NCL and IICT failed to develop a non-infringing process for development of Tamiflu. The project was shelved after incurring an expenditure of Rs. 39, 5353 lakhs. The audit observed that the project was sanctioned in violation of project formulation guidelines. It was also revealed that Indian companies permitted by the government to produce generic versions of the drug had got the process from abroad as a package from the original manufacturer, and the developed process could not be utilized. CAG said that the purpose to become self-sufficient in the event of a threat of the disease in future was also defeated [23].

More than 80% of the people living with HIV in the state are yet to get treatment. Of the estimated 1.25 lakh people living with HIV (PLHIV) in Uttar Pradesh, only 25,278 are getting free anti-retroviral therapy (ART) treatment, according to data from the UP State AIDS Control Society. Here, arises the need of CSR and pharmaceutical companies to combat the scary situation to do everything possible to test and treat the untapped patients. Pharmaceutical Companies such as Cipla specialized in drug manufacturing should as part of CSR concentrate mainly on combating the menace of HIV/AIDS at the national wide than plunging into other schemes and programs [24]. It has been estimated that on an average, 68 people die every day due to cancer in the state of Gujarat. A total of 24,667 people had died of cancer in 2014 and in 2013, it was 23,966. According to the figures, Gujarat was ranked 10th in term of prevalence and deaths in the country. Uttar Pradesh topped the chart with 82,121 deaths, followed by Maharashtra with 44,924. Though pharma companies are engaged in varied activities and schemes in the limelight of CSR it is necessary that efforts are taken to tackle issues targeted on specific health hazards of a particular region than simply doing away with a program just for records and fame [25].

India relies on Medical Council of India (MCI) to prevent malpractices. The MCI notification on December 10, 2009, prohibits all healthcare professionals in India from accepting benefits from pharmaceutical or allied healthcare companies for any purpose, including educational programs or sponsorships even if the event is organized by independent third party organizations. Seeking a relaxation from the notification, the Department of Pharmaceutical, Ministry of Chemical and Fertilizers, sent a letter to the Ministry of Family and Welfare a year ago, saying continued medical education is essential for professional growth and will eventually benefit patients. The ministry has not responded yet.

K V Babu, a doctor who accessed the pharmaceutical department's letter through a Right to Information application, points out that the letter was sent at the behest of the pharma industry and doctors did not have any problem with the MCI notification. Arun Gupta, the convener of Delhi-based non-profit Alliance against Conflict of Interest, says despite

MCI's decision, companies are still engaged in malpractices. He says Johnson and Johnson in its annual report for 2012 revealed having paid more than Rs. 1 crore in 2011-12 to Indian Academy of Pediatrics [26].

Statements by Chairperson-cum-managing director of Mankind Pharma Ltd R C Juneja says if companies stop paying doctors, drugs will be sold only on the basis of their efficacy and expenses of companies will reduce. Sharma, vice-president of Pharmacy Council of India, has a similar view. He says companies can cut cost by restricting unwarranted expenditure, and this would benefit patients. These versions purport that alleged malpractices of pharma companies have been ignored. It could also be interpreted that when doctors are given freebies and gifts they might also recommend medicines which are of undermined quality and combination of drugs which again would be a threat to the human population [27].

Drug resistance is being reported in every sort of infectious disease. A recent survey found that 60% of infectious disease specialists had encountered infections that were resistant to every antibiotic. The World Health Organization categorizes antimicrobial resistance as one of the three greatest threats to human health. If developing these antibiotics is stopped, we would face tremendous public health costs. Antibiotics deliver a much lower return on investment than other types of medicines. The paper on "call to arms" from the Infectious Diseases Society of America in 2008 concluded that antibiotics are less desirable to drug companies and venture capitalists because they are more successful than other drugs and moreover it is long-term therapy - not cures - that drives interest in drug development. The products that make the most money for their shareholders, such as Viagra or Lipitor, while through tax bungs, grants or public-private partnerships pay them to research and develop what makes millions instead of billions. The public bares the risk, but the companies take the profit. If these companies were brought into the public sector under the rubric of the National Institutes of Health or a similar stand-alone body, the money made from the profitable drugs could subsidize the research and development of less profitable drugs in turn for allowing more money to be spent on drug research and development. Placed in the public sector, barriers to open pharmaceutical research would dissolve, which would accelerate outcomes and limit duplication. The company's profit-seeking hurts the poor of the developed and developing the world, which cannot afford the drugs, and hence drug firms have pushed millions into the arms of alternative medicine quackery [28]. The most Indian formulation makers prefer to import bulk drugs from China because it is cheaper to do so, and in fact, in the last few years, have become heavily dependent on Chinese imports. A report in July this year by the Associated Chambers of Commerce and Industry of India has highlighted that lack of self-sufficiency poses a significant risk. It has also pointed out that any deterioration in the relationship with China can potentially result in severe shortages in the supply of essential drugs to the country and, in addition, China could easily increase prices of some of the drugs where it enjoys a virtual monopoly. Therefore, why not pharma companies widen their perspective of CSR to tackle these kinds of issues and try to manufacture the imported drugs to serve the poor [29].

Health these days is viewed more a commodity to be purchased Ayurveda, often called the science of healing and rejuvenation is shrinking not because people do not want it but because it is not properly placed in the public mind. The challenge of the physicians and that of the pharma industries today is to change the form of Ayurveda without distorting its principles which the Indian pharmaceutical companies have neglected. With the advent of the Western ethoscentric worldview the question of which model of leadership health issues we adopt has come about. It is the right time the pharmaceutical companies promote the culture and tradition based health model and practices. India should have an Ayurveda based integrative model [30].

RECOMMENDATIONS

Transparency and accountability need to be improved with a common understanding of what CSR means to health-related and pharmaceutical companies. A common metrics of evaluation could be done to on

a uniform basis. It must be made mandatory for pharmaceutical companies to outline the quantitative and qualitative indicators with which their CSR effectives could be measured. Indices though exist with few companies still needs to be developed and strengthened. Very many pharmaceutical industries in India do not have formal written CSR policies or a certified system of management for their CSR. The resources allotted by the majority of the companies do not correspond to their profit and take shape in the light of deficient funds with mere advertising of programs. Hence, systematic approaches need to be followed when it comes to deploying of investments for CSR practices of a company. Medical advancements must be made truly philanthropic; the profit motive has to be removed. If the objective is to cure rare diseases, there needs to be increased the budget allocation for the National Institutes of Health and other research initiatives instead of gala balls, marathon runs and donor drives, higher taxes on the same rich benefactors could be used to fund the research. Biotech patents developed through venture philanthropy should not have exclusive rights attached to them.

The development of generic versions of drugs into the market goes a long way toward keeping health care costs down and not driving the uninsured into debt. The committee set up by the government headed by the Secretary, Department of Health Research; to look into the issues of bulk drugs/active pharmaceutical ingredients [31]. The government should prioritize the diseases on which trials are to be conducted. Health experts suggest transparency to improve the system. Independent audits of clinical trials should be conducted and made public. There must be an independent authority to audit DCGI and ethics committees which regulate and monitor clinical trials in India. According to Satish Reddy, President, Indian Pharmaceutical Alliance and Chairman of drug maker DRL to stem out Chinese bulk drugs flow into India the government in collaboration with the pharmaceutical industries creates industry clusters with state support to enjoy basic facilities such as power at competitive prices which in turn will make industry to look to investing in capacities that achieve scale and reduce costs [32].

Pharmaceutical companies need to take efforts toward promoting an indigenous system of medicines which were used in different combinations with minimal side effects on the human population.

CONCLUSION

The concept of CSR has gained importance from all avenues. Pharmaceutical companies need to realize that mere government alone will not be able to tackle the health-related menace of the society and it becomes necessary for this industry to have an enlarged understanding of CSR. It is high time that drug companies start thinking aloud of their CSR activities targeted more into research and development of generic drugs to fight diseases, promote indigenous practices and medicines, minimize using human samples as guinea pigs and enhance sustained efforts to maximize the company's overall impact on the society and stakeholders. It, therefore, becomes imperative that Government in collaboration with Pharmaceutical industries keep the welfare of citizens as a prime concern than profit earning and multinational partnerships.

REFERENCES

- Available from: http://www.pharmabiz.com/ArticleDetails. aspx?aid=90147&sid=1.
- Friedman M. The Social Responsibility of Business is to Increase its Profits. The New York Times Magazine. https:// www.colorado.edu/ studentgroups/.../friedman-soc-resp-business.html. [Last retrieved on 2008 Jul 03]
- Our Cry for Life. Latin American Theology from the Perspective of Women (San Jose, Costa Rica: Ecumenical Department of Research, 1992). et al.
- 4. Ganguly S. The Investor-State Dispute Mechanism (ISDM) and a

- Sovereign's power to protect public health. Columbia J Trans Law 1999:38:113.
- McKibben B. Hope vs. Hype. Mother Jones. [Last retrieved on 2008 Jul 031.
- Porter ME, Kramer MR. The competitive advantage of corporate philanthropy. Harv Bus Rev 2002;80(12):56-68, 133.
- United Nations (UN). Global Compact: Corporate Sustainability in the World Economy. 2014. Available from: https://www.unglobalcompact. org/index.html. [Last accessed on 2014 Apr 25].
- Leisinger KM. The corporate social responsibility of the pharmaceutical industry: Idealism without illusion and realism without resignation. Bus Ethics O 2005;15(4):577-94. doi: 10.5840/beq200515440.
- Lee M, Kohler J. Benchmarking and transparency: Incentives for the pharmaceutical Industry's corporate social responsibility. J Bus Ethics 2010;95:641-58. doi: 10.1007/s10551-010-0444-y.
- Pharma TA. CSR: Why good deeds are good business. Eye Pharm 2011.
 Available from: http://www.social.eyeforpharma.com/commercial/pharma-and-csr-why-good-deeds-are-good-business. [Last accessed on 2015 Apr 09].
- Armstrong JS, Green KC. Effects of corporate social responsibility and irresponsibility policies. J Business Res 2013;66(12):2369-6.
- Hwang JJ. Is Merck's Corporate Social Responsibility Good for the Global Health? U of California, San Diego; 2012. Available from: http://www.irps.ucsd.edu/assets/001/503692.pdf. [Last accessed on 2014 Mar 20].
- Gruskin S, Raad Z. Are drug companies living up to their human rights responsibilities? Moving toward assessment. PLoS Med 2010;7(9):e1000310.
- Lee JY, Hunt P. Human rights responsibilities of pharmaceutical companies in relation to access to medicines. J Law Med Ethics 2012;40(2):220-33.
- Ritter GS. Are drug companies living up to their human rights responsibilities? The Merck perspective. PLoS Med 2010;7(9):e1000343.
- PLoS Medicine Editors. Drug companies should be held more accountable for their human rights responsibilities. PLoS Med 2010;7(9):e1000344.
- Blowfield M, Frynas JG. Setting new agendas: Critical perspectives on corporate social responsibility in the developing world. Int Affairs 2005;81:499-513.
- Hopkins M. Corporate Social Responsibility: Is Business the Solution? London: Earthscan; 2007.
- Big Pharma's Dirty Tricks. (n.d.). Available from: http://www.downtoearth.org.in/blog/big-pharmas-dirty-tricks-38830.
- Ethics on trial. (n.d.). Available from: http://www.downtoearth.org.in/ coverage/ethics-on-trial-33605. [Last retrieved on 2016 Jan 20].
- Available from: http://www.downtoearth.org.in/coverage/ethics-ontrial-No one liable for trial mishap-33605.
- Available from: http://www.downtoearth.org.in/coverage/ethics-ontrial- Bill shows the way -33605.
- Available from: http://www.deccanchronicle.com/151210/nationaffairs/article/csir%E2%80%99s-move-develop-indiantamiflu.
- 24. Available from: http://www.timesofindia.indiatimes.com/city/lucknow/In-UP-80-of-people-with-HIV-are-untreated/articleshow/50194262 cms.
- 25. Available from: http://www.timesofindia.indiatimes.com/city/ahmedabad/68-die-of-cancer-every-day-in-Gujarat-Report/articleshow/50131274.cms.
- Available from: http://www.downtoearth.org.in/news/no-more-freebiesto-doctors-gsk-43128.
- Available from: http://www.downtoearth.org.in/news/no-more-freebiesto-doctors- industry view -gsk-43128.
- Available from: https://www.jacobinmag.com/2013/06/socialize-bigpharma/.
- Available from: http://www.businesstoday.in/magazine/features/indianbulk-drug-makers-becoming-world-leaders-niche-areas/story/210082. html
- 30. Available from: http://www.rediff.com/news/interview/ayurvedais-medicine-with-intelligence-modern-medicine-is-like-abullet/20141118 html
- Available from: http://www.economictimes.indiatimes.com/industry/healthcare/biotech/pharmaceuticals/govt-looking-into-suggestions-to-strengthen-bulk-drugs-sector/articleshow/50186554.cms.