



WHAT ASPECTS OF BIOGEN'S SUSTAINABILITY EFFORTS DOES IT CUSTOMERS DERIVE VALUE FROM?

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Problem Statement

Biogen invests significant capital and effort to ensure it conducts its business in the most sustainable way possible, yet it is unsure of whether its customers are aware of its initiatives. Biogen seeks a deeper understanding of the awareness and importance of its sustainability efforts to its customers (patients, doctors, hospitals, insurance companies, contract manufacturers, etc.), with an eye towards how it can better align its sustainability programs towards current customer needs and future trends.

Questions to Answer

Do Biogen's customers know about its sustainability practices?

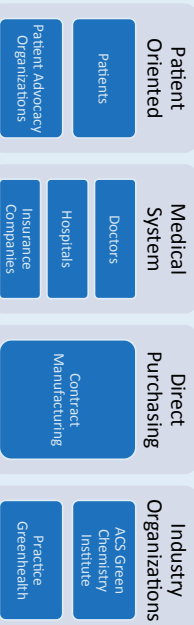
Do Biogen's customers care about sustainability?

What are the most important sustainability issues to Biogen's customer base?

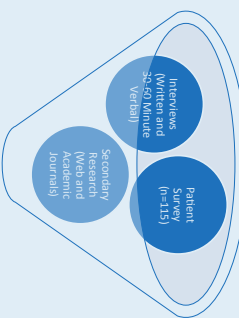
About Biogen

As one of the leading biopharmaceutical companies in the world, Biogen develops, tests, and manufactures a variety of therapies for individuals with neurological, autoimmune and rare diseases. Biogen currently has cutting edge therapies for Multiple Sclerosis and has a variety of drugs in clinical trials for Alzheimer's, Lupus, and non-Hodgkin's lymphoma.

Customers & Stakeholders



Methodology



Customer Stakeholder Awareness & Perceptions of Sustainability

Questions in the Patient Survey

1. Patient Status – Are you a patient or caregiver?
2. What are your biggest concerns about your prescriber/medications? (Choose Top 3)
3. Do you know anything about the sustainability efforts of the companies that make your medicines or of the pharmaceutical industry in general? (Choose One)
4. Can you name some sustainability programs that you are aware of?
5. Are there any sustainability initiatives that are or will become particularly important to you?
6. Do you have any final thoughts on sustainability in the pharmaceutical industry you would like to anonymously share with us?

Patent Survey Findings

1. Patients generally do not know which company makes the drugs they take and are unaware of the sustainability efforts of the pharmaceutical industry.
2. Patients are focused on a variety of issues – the biggest concerns are efficacy, price, safety, side effects, and insurance coverage (see Chart 1).
3. Patients do not recognize price and access to medicines as sustainability issues. Patients are aware and concerned about the perceived lack of information sharing between research institutions, universities, government agencies, and other bodies involved in pharmaceutical research and trials.
4. Environmental and social sustainability efforts are not mutually exclusive – patients generally care about both, even though their primary concern may be about affording and getting their prescriptions.

The sustainability efforts of a company such as Biogen will likely not impact purchasing behavior by patients – but it could impact how Biogen is perceived by patients and the general public opinion surrounding the company.

Percentage of survey respondents who selected the following as their biggest concerns about the prescriptions they take

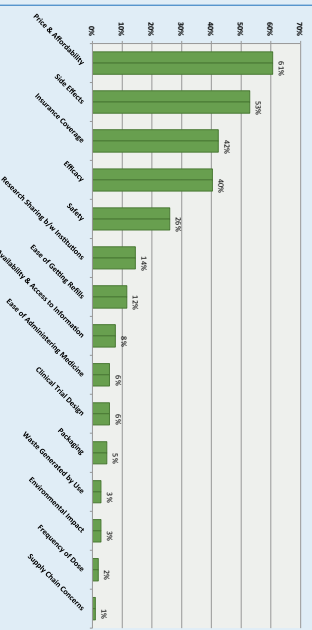


Chart 1. Survey of Patient's Concerns About Their Medications.

Other Stakeholder Findings

- **Advocacy organizations** seek a streamlining of research and medical data sharing to decrease a potential drug's research and development timeline and cost.
- **Doctors** are singularly focused on efficacy but there are indications that corporate social responsibility may sway doctors.
- Impacts of sustainability on **hospital purchasing behavior** are mixed – the majority of procurement practices that involve sustainability focuses on medical devices and general supplies, but not drugs, but this may be changing.
 - Kaiser Permanente and Partners Healthcare emphasize social and environmental sustainability across the board and may lead with respect to incorporating drug company sustainability into sustainability purchasing requirements.
- **Insurance coverage** is not directly impacted by sustainability - cost, performance and safety drive coverage decisions – but there is room for price transparency.
- **Environmental sustainability** matters most for **contract manufacturing** – there is clear demand among potential contract manufacturing clients for Biogen's environmental initiatives such as energy, resource use and waste reduction.

References

1. Caplan, A., & Sauer, A. (2011). Making decisions about prescription drug: a study of doctor. *Journal of General Internal Medicine*, 26(1), 77-83.
2. Hill, A., & W. (2011). The impact of patient education on adherence. *Medical Clinics*, 85(1), 1-10.
3. The World Health Organization. *World Health Organization*. 2019. <https://www.who.int/>
4. Centers for Disease Control and Prevention. *Centers for Disease Control and Prevention*. 2019. <https://www.cdc.gov/>
5. Shovkoplyas, A., & Logg, C. (2020). *Pharmaceutical Industry Sustainability: A Review of the Literature*. *Journal of Business Ethics*, 171(1), 1-15.
6. Shovkoplyas, A., & Logg, C. (2020). *Pharmaceutical Industry Sustainability: A Review of the Literature*. *Journal of Business Ethics*, 171(1), 1-15.
7. Shovkoplyas, A., & Logg, C. (2020). *Pharmaceutical Industry Sustainability: A Review of the Literature*. *Journal of Business Ethics*, 171(1), 1-15.
8. Shovkoplyas, A., & Logg, C. (2020). *Pharmaceutical Industry Sustainability: A Review of the Literature*. *Journal of Business Ethics*, 171(1), 1-15.
9. Shovkoplyas, A., & Logg, C. (2020). *Pharmaceutical Industry Sustainability: A Review of the Literature*. *Journal of Business Ethics*, 171(1), 1-15.
10. Shovkoplyas, A., & Logg, C. (2020). *Pharmaceutical Industry Sustainability: A Review of the Literature*. *Journal of Business Ethics*, 171(1), 1-15.
11. Shovkoplyas, A., & Logg, C. (2020). *Pharmaceutical Industry Sustainability: A Review of the Literature*. *Journal of Business Ethics*, 171(1), 1-15.
12. Shovkoplyas, A., & Logg, C. (2020). *Pharmaceutical Industry Sustainability: A Review of the Literature*. *Journal of Business Ethics*, 171(1), 1-15.
13. Shovkoplyas, A., & Logg, C. (2020). *Pharmaceutical Industry Sustainability: A Review of the Literature*. *Journal of Business Ethics*, 171(1), 1-15.
14. Shovkoplyas, A., & Logg, C. (2020). *Pharmaceutical Industry Sustainability: A Review of the Literature*. *Journal of Business Ethics*, 171(1), 1-15.
15. Shovkoplyas, A., & Logg, C. (2020). *Pharmaceutical Industry Sustainability: A Review of the Literature*. *Journal of Business Ethics*, 171(1), 1-15.
16. Shovkoplyas, A., & Logg, C. (2020). *Pharmaceutical Industry Sustainability: A Review of the Literature*. *Journal of Business Ethics*, 171(1), 1-15.
17. Shovkoplyas, A., & Logg, C. (2020). *Pharmaceutical Industry Sustainability: A Review of the Literature*. *Journal of Business Ethics*, 171(1), 1-15.
18. Shovkoplyas, A., & Logg, C. (2020). *Pharmaceutical Industry Sustainability: A Review of the Literature*. *Journal of Business Ethics*, 171(1), 1-15.
19. Shovkoplyas, A., & Logg, C. (2020). *Pharmaceutical Industry Sustainability: A Review of the Literature*. *Journal of Business Ethics*, 171(1), 1-15.
20. Shovkoplyas, A., & Logg, C. (2020). *Pharmaceutical Industry Sustainability: A Review of the Literature*. *Journal of Business Ethics*, 171(1), 1-15.

Stakeholder	Patients	Insurance Companies	Contract Manufacturing	Hospitals	Doctors	Patent Advocacy Organizations
Access to Medicine	Green	Green	Green	Green	Green	Green
Price and Affordability	Green	Green	Green	Green	Green	Green
Efficacy	Green	Green	Green	Green	Green	Green
Safety & Side Effects	Green	Green	Green	Green	Green	Green
Research Sharing Between Institutions	Green	Green	Green	Green	Green	Green
Clinical Trial Design	Green	Green	Green	Green	Green	Green
Price Transparency	Green	Green	Green	Green	Green	Green
Access to Information on Drugs and Clinical Trials	Green	Green	Green	Green	Green	Green
Environmental Impact of Manufacturing & Transport	Green	Green	Green	Green	Green	Green
Waste Generated from Use	Green	Green	Green	Green	Green	Green

Roadmap for Biogen

Environmental and Social Sustainability will become an inherent part of the biopharmaceutical industry landscape and one of the key factors which will determine companies competitive positions in the next 5-10 years. The differences in sustainability issue prioritization between Biogen's customers will dissipate as customers become more educated and their shared common interests become apparent. Low customer awareness and gaps in understanding of Social Sustainability issues creates a unique 5-7 years window of opportunity for Biogen to become an industry leader in Social Sustainability - capturing a privileged position with its key customer groups.

5 Recommended Projects for Biogen to Pursue

- Explore opportunities to engage in further educational patient outreach, potentially with patient advocacy organizations.
- Look further at where Biogen can align its product packaging and transportation with major purchaser's needs and reduce the waste from its products use.
- Investigate further opportunities for Biogen to work with research institutions in sharing and streamlining research.
- Conduct an internal stakeholder assessment on the viability of working towards price transparency in the next two to five years.
- Discuss with other industry leaders the opportunity to push for green chemistry legislation in the United States.

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