

The path to sustainability starts with innovative analytics solutions

With consumers growing increasingly conscious of the environmental impact of their consumption habits, corporations in every industry are taking a hard look at their own practices.

This newfound focus on sustainability is not only an acknowledgement of the key role that businesses can play in creating a better world - it is also a recognition of the shareholder and stakeholder value they can create by becoming lither, more responsive organizations.

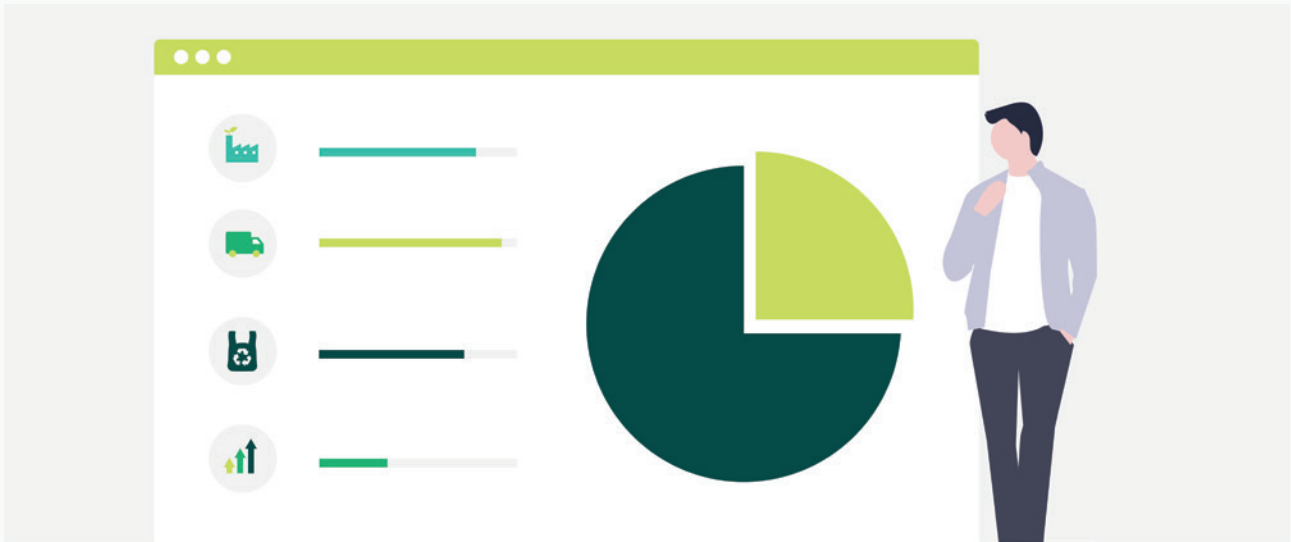
Several years ago, one of Thorogood's clients and major manufacturer of consumer-packaged goods made a bold decision to make good corporate citizenry less of an ideal and more of an objective. Even before the company announced a sweeping sustainability initiative with several ambitious benchmarks for reducing waste, it had begun working with Thorogood on a series of analytics projects that still today play a critical role in its quest for more responsible operations. From reducing the material in its packaging to limiting the waste created in the production cycle, Thorogood's work with this client offers some powerful examples of the way that smart, elegant analytics solutions can drive sustainability while creating value.

Sustainability throughout the supply chain

For a company to improve its environmental impact, it must first quantify what that impact is. A huge portion of a company's environmental footprint can lie in tangential

line items within the production and distribution cycles. At the firm in question, for instance, one of its biggest drivers of waste is product packaging. According to the United States' Environmental Protection Agency, containers and packaging make up nearly 30 percent of municipal solid waste. Of that total, approximately five percent, or 14.5 million tons, are plastic containers. As one of the world's largest CPG brands, the firm knew that it bore outsized responsibility for reducing that number. First, it needed to quantify exactly how much waste it was producing, something for which it turned to Thorogood for help.

With decades of experience developing reporting solutions for Fortune 500 companies, Thorogood was accustomed to working with data at the massive scale that the packaging conundrum required. One of its first projects on this front was a Power BI tool that enabled users to see the waste footprint of each of the products in its broad portfolio of brands. By combining Power BI's visualization capabilities with a keen manipulation of internal company data, the solution facilitated the sorts of analyses that the company needed to target areas of potential improvement. For example, the tool could enable a user to see that the consumption of its ice cream brands was generating nearly 150 thousand tons of packaging waste in the Philippines, significantly more



than any other country in the region. From there, the user could experiment with substitutions and alterations that would reduce that total.

More recently, Thorogood has turned its attention toward a trio of goals that the client has set for the year 2025: a 50 percent reduction in the amount of virgin plastic it uses in its packaging, a 25 percent increase in its use of post-consumer recycled plastic, and 100 percent of its packaging designed to be either recyclable, compostable, or fully reusable. These objectives are the genesis of a new tool that offers a comprehensive look at the company's plastic footprint in a number of key countries. Built in Power BI and supported by a curated data layer created in a SQL database, the tool offers an overview of key performance indicators in total packaging, total packaging waste, and the percentage of packaging that is recycled and/or reusable.

From a main screen that features the company's overall performance over time in each of these categories, users can drill down deeper to identify variables that are impacting performance. Suppose a user sees an uptick in the amount of waste produced in the South Asia region. With one click of the mouse, they can view how that figure is distributed across each of the countries in the region. A quick inspection might reveal that a single country is driving the overall total, at which point the user can use the tool to run a footprint analysis of the country. The footprint analysis offers a look at which product types are producing the most waste within the given country. From there, the user can run a scenario analysis on an individual product type, which leads to a screen that offers alternative packaging options.

Going green by going granular

Improving sustainability requires understanding the production cycle on a granular level, all the way down to the raw materials used in the manufacturing of product packaging. One of the more innovative solutions that Thorogood developed for this client was a series of Tableau dashboards that gave users the ability to monitor and manage the sourcing of raw materials at each of its factories. Using the tool, analysts could monitor the stocks of material at each facility and identify surpluses and deficits that would previously have led to waste. For instance, an analyst could see that a factory in Bangladesh had excess stores of silicon, while factories elsewhere were running deficits. From there, the analyst could make plans to transfer stock from one facility to the other.

As each of these projects illustrates, improving sustainability performance requires both logistical problem-solving skills and a keen deployment of technology to facilitate the diagnostic process. The client knew that its data had a comprehensive story to tell. It just needed help with harnessing that data and developing a plan. Thorogood's ongoing work with the firm is a shining example of the role that robust analytic solutions can play in rightsizing a company's consumption habits. Waste Reduction is no longer an idealistic goal. Today's technological landscape and data analysis practices have radically altered the cost-benefit equation. With the right vision and technological expertise, any firm in any industry can take a comprehensive look at its consumption habits and understand the environmental and economic benefits that it stands to gain.



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