Product Stewardship: Impact on Brand, Compliance, and Risk Management

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Product Stewardship – Business Drivers

"When in doubt, throw it out!" This phrase has long been used in the medical community to warn against eating tainted or spoiled food. What do spoiled leftovers in the refrigerator have to do with sustainable products? ...The personal decision to accept the risk or opt for safety.

There are several dynamics that influence such personal decision making when it comes to product safety:

Short-term vs. long-term thinking: In the example above, people living in poverty are more likely than the affluent to accept a greater level of risk that food may be spoiled. The need for food outweighs the perception of risk. Whereas the more affluent (with greater access to food) have a lower tolerance for risk, real or perceived, and are more likely to opt for safety (and throw it out when in doubt). This also applies to products.

Access to information: The more affluent have greater access to information via the internet. This allows them to identify possible concerns, obtain additional information, and define alternatives before making a decision.

Ability to influence: The affluent are able to consume more and, therefore, have a greater ability to influence companies. With the reach of social media, concerns can be shared with large numbers of people, and group opinions can develop quickly. Companies are sensitive to consumer concerns that could adversely impact their brand and will make changes to reduce those concerns, whether the concerns are real or perceived, and whether they represent the broader consumer base or not.

Defining Product Stewardship

Responsibly managing the health, safety, and environmental aspects of raw materials, intermediate, and consumer products throughout their life cycle and across the value chain in order to prevent or minimize negative impacts and maximize value.

- Product Stewardship Society

Also known as:

- Product Sustainability
- Product Compliance
- Product Safety

These dynamics were realized in 2014 when Coca-Cola and Pepsi removed an ingredient from their products in response to an online petition that was started by a 17-year-old in the state of Mississippi. Even though the ingredient was shown to be safe based on scientific research and was approved by the United States (US) Food & Drug Administration[2], the two largest beverage manufactures modified their product formulation to avoid the perception of risk[3]. This example 1) shows how product information can be used for decision making, 2) reflects a low tolerance of risk from some consumers, and 3) illustrates how social media can be used to raise concern and effect change – bypassing the risk assessment, risk management, and regulatory processes altogether.

Changes in societal expectations for greater transparency and safer products are also reflected in evolving public policies (i.e., the development of laws and regulations), as well as retailer sustainability programs such as the recent Sustainability Chemistry Policy[4] at Walmart. These programs bypass the public policy process by driving product changes through the elimination or restriction of substances of concern from their stores. In such cases, suppliers that want to sell their products through these retailers need to modify their products to meet retail requirements, which also can be driven by real or perceived safety concerns.

2. The ingredient of concern was approved by the FDA for use in beverages up to 15 parts per million – a very small amount.
3. Sarah Kavanagh of Hattiesburg, Mississippi, launched a petition on Change.org asking Coca-Cola PepsiCo to remove Brominated Vegetable Oil (BVO) from all of their drinks. In May 2014, it was reported that both Coke and Pepsi would remove BVO from their products.
4. http://www.walmartsustainabilityhub.com/app/answers/detail/a_id/310/session/L2F2LzEvdGltZS8xNDA1MjcyNjk5L3N-pZC9YcFJ2M2NabA%3D%3D

Product Stewardship - From Ideation to Commercialization

In order to be sustainable, manufacturers need to be acutely aware of consumer safety concerns that could impact their products. They also need to make informed, conscious decisions on whether to engage in the public policy process, prepare to meet new regulatory requirements, address the requirements of retailers, or make product changes.

Consumer product safety concerns create challenges as well as opportunities, which can drive innovation. In order to stay in front of such changes, companies should consider the development of a robust system to monitor and respond to consumer concerns, and incorporate this information into their new product "ideation" process. Such considerations can provide a competitive advantage to companies that can anticipate and prepare for product safety challenges.

As described above, monitoring public opinion and evolving regulatory requirements can provide valuable insights on anticipated changes that may impact product viability and compliance costs. It also can provide insights for new product development and marketing strategies that include regional (e.g., EU) or country-specific (e.g., US and Pacific region countries) requirements. For example, a company could begin working on ideas for alternatives to chemical substances under growing consumer concern before they become the target of public pressure or governmental bans/restrictions. They could do the same for chemicals that are listed for restricted use or bans. Similarly, a company could integrate regulatory compliance status into their marketing strategy for a new product launch by beginning sales in countries where the product is already in compliance and using the revenue gained from those sales to invest in meeting compliance requirements in other priority countries.

In order to achieve maximum effectiveness, product stewardship and compliance considerations should be included in new product design. New products are typically developed by the company's Research and Development (R&D) department, which in many cases use some form of a "Stage-Gate®"[4] review process to evaluate the viability of the new product at each stage of development. The new product advances through the stages by meeting company criteria for value creation potential, the ability to cost-effectively manufacture the product, and the likelihood of customer acceptance,. As the product advances, it should also be evaluated against consumer safety concerns, public policies (including those under development), and compliance requirements in each geography where the product is intended to be manufactured and/or sold.

Figure 1 provides an example of the type of product stewardship questions that could be considered at each stage of a new product development process. These considerations need to be customized for the type of products under evaluation and consistent with corporate policies, positions, and culture.

4. Stage-Gate® is a registered trademark; © 1996–2014 by the Product Development Institute, Inc.

Figure 1. New Product Development Process

Stage 1 – Scoping
Stage 2 – Build Business Case
Stage 3 – Development
Stage 4 – Testing and Validation
Stage 5 – Launch

Gate 1

- Define county(ies) of sale
- Define product use(s)
- Complete regulatory review
- Determine chemical inventory status - ingredients and raw materials
- Evaluate ingredients relative to "PBTs[1] and CMRs[2]"

Gate 2

- Define regulatory requirements
- Develop regulatory strategy
- Strategy should include product stewardship and "green chemistry" considerations as well as compliance requirements
- Refine ingredients and intended product use(s)

Gate 3

- Initiate physical property, toxicology, and environmental testing
- GHS[3]/CLP[4] Classifications
- SDS[5] initiation
- Label initiation

Gate 4

- SDS and labeling complete
- Include additional countries as appropriate
- Trace chemistry/ residual review
- Product hazards and uses defined
- Conduct product safety and assessment for each use

Gate 5

- Categorize product hazards/risks
- Develop risk management (product stewardship) requirements
- Conduct business risk review
- Communicate limitations on sales
- Allow sales per geography after compliance review

Maintain Records

- Manage records
- Follow records retention policy

[1]PBT - Persistent, bioaccumulative, and toxic
[2]CMR - Carcinogen, mutagen, or reproductive toxicant
[3]GHS – Globally Harmonizes System for Classification and Labeling of Hazardous Chemicals
[4]CLP – Classification, Labeling and Packaging of Hazardous Chemicals
[5]SDS – Safety Data Sheet

Another benefit of integrating stewardship and compliance considerations into the Stage-Gate review process is increased speed to market and facilitated global growth. Rather than considering compliance only prior to new product launch, compliance is addressed at each stage, which dramatically increases the likelihood that compliance requirements have been met. If these requirements have not been incorporated at each stage, there can be a significant time-lag from launch to sales while compliance is put in place, which can take months to years.

ERM has seen a measurable increase in efficiency and effectiveness when such a program, customized for the client, is put in place. The number of days, weeks, or months from the intended product launch to the actual launch can be compared before and after implementation of the program to demonstrate improved performance.

In addition to stewardship and compliance, business risk should also be evaluated early and often during the Stage-Gate review process. New products, new uses, and new geographic sales all bring opportunities for business risk as well as growth. In order to weigh business risk and benefit, companies should consider the development of a Business Risk Review Program.

Such a program is designed to identify and mitigate business risks proactively, as well as provide a forum for evaluating business risks and benefits for informed decision making. Incidents that occur when risks are not identified and appropriately managed result in "value destruction" due to the cost associated with the incidents (e.g., loss of sales due to delays and business disruption, cost of fines for non-compliance, litigation, etc.). For these programs to be effective, they need the following:

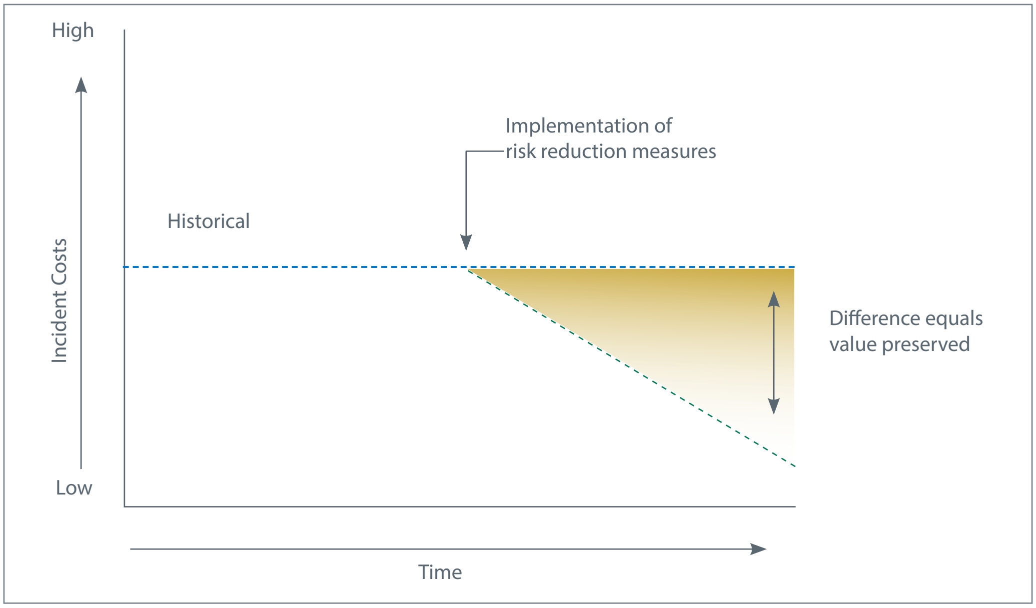
- Strong corporate and business unit commitment;
- Defined roles and responsibilities for preparing information to be evaluated during the review on product risks (which is typically assigned to the product stewardship and regulatory affairs group) and on product benefits (which is typically assigned to the marketing and sales group);
- Assignment of risk decision making authority at the corporate and business unit levels; and
- Criteria for elevating decision making from one level to the next.

Personal and business decisions are made every day that have some level of associated risk. If we decide to drive a car, we risk being in an accident. If a company decides to sell its products for certain uses, the company risks consumer misuse. Business risk review programs seek to ensure that the potential risks of product development, manufacturing, sale, distribution, and use are understood, that risk mitigation actions are put in place to reduce or eliminate the risks, and that risks are weighted against the benefits of increased sales and business growth. Business risk review programs can also be incorporated with sustainability, corporate social responsibility, and enterprise risk management programs.

The integration of stewardship and compliance considerations into the company Stage-Gate review process "creates value", which can be demonstrated by tracking the revenue generated through sales from increased speed to market.

The "value preservation" associated with implementation of risk reduction measures is more difficult to measure. This is because it's impossible to count the number of incidents that did not occur because risk reduction measures were proactively put in place. However, by tracking the reduction of incidents over time and comparing it to historical experience, the "value preserved" can be calculated. Figure 2 shows how the value of proactive implementation of risk reduction can be tracked and calculated.

Figure 2. Calculation of Value Preserved through the Implementation of Risk Reduction Measures



Value can now be created based on this demonstration of effective risk management. Just like a family of four driving a minivan that has low insurance premiums than an 18 year old driving a sports car, a company that can demonstrate that it understands and proactively manages it risk should also have lower premiums that the industry standards. ERM has seen this occur for clients where the reduction in premiums was as much as 10 percent per year, which converted into millions of dollars in annual savings. These savings can be invested and generate revenue, which creates value.

Conclusion

In an environment of ever-increasing demands for product safety, evolving public policy, and growing retailer programs, companies will face challenges, opportunities, and risks. The companies that understand these dynamics will survive and strive through the creation of programs to monitor and outpace the rate of change and mitigate business risk.

How to Learn More

Questions or comments? Email the author at john.phillips@erm.com.

John is a Technical Director at ERM. He is an expert in global chemical policy and product stewardship, which was developed over a successful 30 year career at The Dow Chemical Company, 15 years of which were spent leading the development of chemical industry sustainability programs and working with the United Nations Environmental Program (UNEP) and Organization for Economic Cooperation and Development (OECD) on the Strategic Approach to International Chemicals Management (SAICM).

John works with major chemical, plastics, pharmaceutical, agricultural, chemical, and consumer product companies. He applies his experience and expertise to integrate product stewardship into business practices that accelerate time to market, facilitate global growth, mitigate risks, and improve corporate reputation.

About ERM

ERM is a leading global provider of environmental, health, safety, risk, social, and sustainability related consulting services. We have more than 160 offices in over 40 countries and territories employing more than 4,500 people who work on projects around the world. ERM is committed to providing a consistent, professional, and high quality service to create value for our clients. Over the past three years we have worked for more than 50 percent of the Global Fortune 500 delivering innovative solutions for business and select government clients helping them understand and manage the sustainability challenges that the world is increasingly facing.

For over 40 years we have been working with clients around the world and in diverse industry sectors to help them understand and manage their environmental, health, safety, risk, and social impacts. The key sectors we serve include oil and gas, mining, power, manufacturing, chemical, and pharmaceutical. All face critical sustainability challenges and our clients in these and many other areas rely on our ability to assist them to operate more sustainably which has a positive impact on our planet.

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