PERSPECTIVE

Product Compliance

A Necessary Evil or an Opportunity?

Jagmeet Singh

Product compliance is a constantly evolving process.

Because laws and regulations continuously change, manufacturers, retailers and suppliers are pressed to innovate quickly in order to create compliant products. Whether an organization manufactures the product or resells it, the responsibility to comply makes the manufacturer as well as the reseller legally accountable. The role of product compliance increases in scenarios of product proliferation and complex supply chains. Additionally, with a recent increase in compliance-related penalties, fines, and recalls, the room for non- compliance is non-existent. Furthermore, the business challenge lies in not only producing a compliant product but also in declaring it as compliant by placing it on store shelves.

In this paper, Infosys presents its perspectives on product risks and their changing dimensions, product compliance & its declaration.

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Product Risks and Dimensions

The subject of product compliance is giving rise to a completely new era of business risks. How many people really understand this?

> Employees of a leading laptop manufacturer were in for a shock as they found the message "Hazardous Products" painted on the roof of their office and Non-Government Organization (NGO) activists squatting on top of the roof. The activists were protesting manufacturer's alleged backtracking on its commitment to eliminate toxic chemicals from its products by end of the year. [1]

Illustration 1 states that business risk does not solely stem from product failure, product non-compliance, trade changes or external factors in a changing economy. It is mainly due to material and social non-compliance. Social non-compliance is another key aspect and a new entrant in business risk dimension over the past few years. Social compliance has taken a very strong place in directly impacting the risk dimensions known to organizations before.

Figure 1

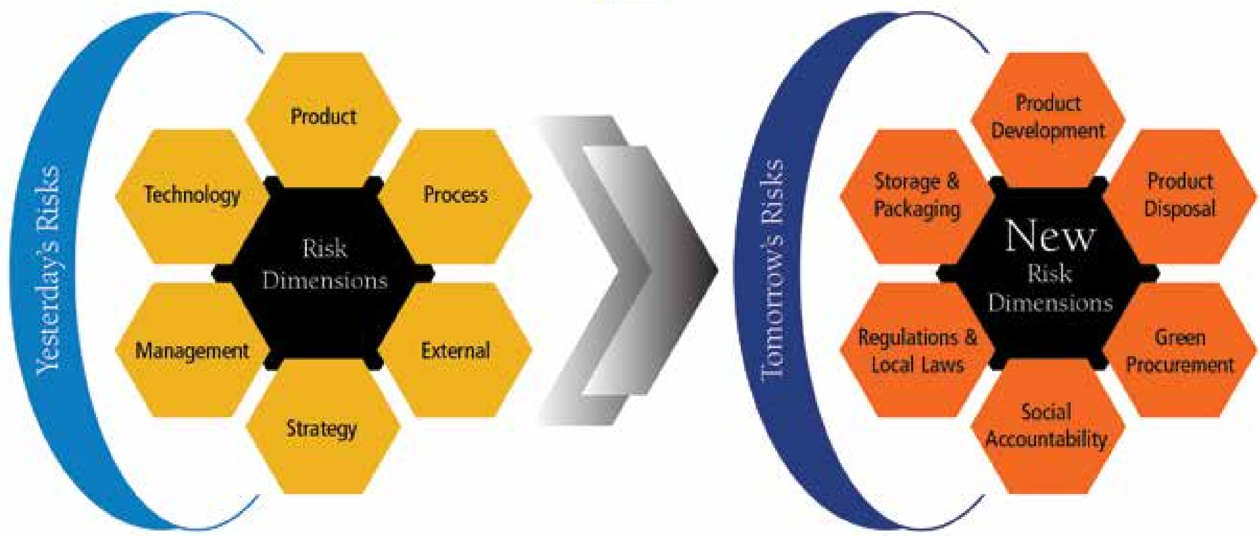


Figure 1 shows the paradigm shift in the risk dimensions to any given product. Risk dimensions like product failure due to lack of competitive features, poor business processes leading to revenue leakage, external factors like political instability causing production and inventory losses, lack of strategic approach to gain market size and value for shareholders, narrow view of management towards product diversification and product's support for obsolete technology platforms are now regarded as "Yesterday's Risks". Businesses across the world have already evolved in order to mitigate yesterday's risks.

The new risk dimensions, which are slowly and steadily changing the business 'game plan' and product strategy, are called as "Tomorrow's Risks". Today, no business is fully equipped and mature enough to handle these risks. It is therefore important to explore how these risks will impact businesses across the world.

The impact of these risks is mainly in three major areas of concern: Environment, Economy and People.

- **Environment:** Greenhouse gas emissions, acidification, ozone layer depletion, wildlife impact, etc.,
- **Economy:** Create profits, market share and free cash flow by following practices which do not harm the environment or people and allow business to sustain growth.
- **People:** Product safety, occupational safety, and corporate responsibility.

Figure 2

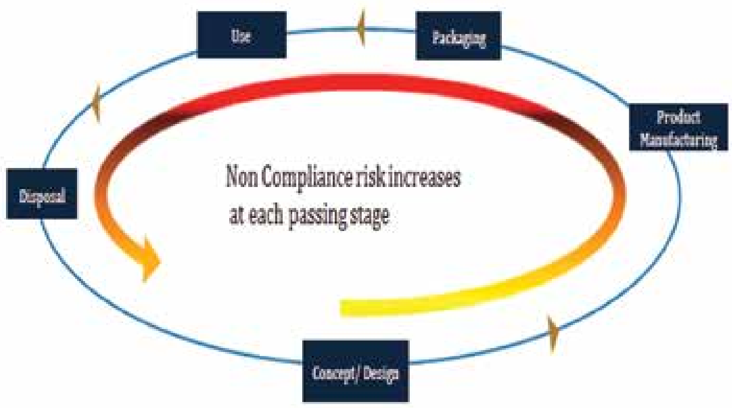
	Environment	Economy	People
Product Development	Extraction process, type of material and production energy	Product sales and revenues, Brand image	Product safety, Ergonomics & usability
Product Disposal	Landfill, acidification, wildlife, ozone layer depletion	Penalties and fines, brand image loss	Societal safety, health impact and diseases
Green Procurement	Carbon emissions, modes of transport, type of material	Shipment delays and suspensions leading to revenue loss	Brand image loss, loss of customer faith and loyalty
Social Accountability	Natural resource impact and depletion	Societal safety, health impact and diseases	Occupational safety, wages, corporate responsibilty
Regulations & Local Laws	Landfill, acidification, wildlife, ozone layer depletion	Penalties and fines, brand image loss	Public agitation, protests, product and corporate backlash
Storage & Packaging	Emissions, landfill impact, pollution and hazards	Bans, fines and product suspensions	Health and safety, loss of life

The Figure 2 matrix establishes the severe impact of product non-compliance from a product's birth to its disposal. One can state that "the way we produced yesterday will not be the best way to produce tomorrow".

Product Compliance and Declaration

Products undergo a series of lifecycle stages, and compliance plays a role in each one of them. Figure 3 (below) summarizes some of the key regulations (stage-wise) a product has to comply to. The regulations may vary based on the type of product and geography.

Figure 3



Stage	Regulation
Concept/Design	Dangerous Substances Directive (67/548/EEC)
	Dangerous Preparations Directive (1999/45/EC)
	Regulation (EC 1907/2006) REACH
Product Manufacturing	Seveso II Directive (96/82/EC)
	Health and Safety of Workers Directive (98/24/EC; within 89/391/EEC)
	Water Framework Directive (Directive 2000/60/EC)
	Council Directive on the landfill of waste (1999/31/
	Regulation (EC 1907/2006) REACH
Packaging	Unit Pricing Directive (98/6/EC)
	Packaging and Packaging Waste Directive (94/62/EC)
	Restrictions on Marketing and Use Directive (76/769/EEC)
	Health and Safety of Workers Directive (98/24/EC; within 89/391/EEC)
	United Nations Model Regulations on the Transport of Dangerous Goods
Use	General Product Safety Directive (92/59/EEC)
	Restrictions on Marketing and Use Directive (76/769/EEC)
	Council Directive on the landfill of waste (99/31/EEC)
Disposal	
	Packaging and Packaging Waste Directive (94/62/EC)

As we progress along the lifecycle, starting from Concept/Design, the risk for non-compliance increases. The risk in such cases is not just limited to product failure but also leads to loss of brand image, heavy monetary penalties and a severe decrease of customer faith itself.

> A leading US toy manufacturer had to recall 1.5 million toys made in China for one of its products, due to fear about lead paint. The recall was estimated at a cost of USD 30 million. This was a total breach of REACH and CPSIA regulations.

Moreover, due to lengthy and complex supply chains for product development, the ability to influence the suppliers from manufactures for compliance decreases. This leads to the following supplier-facilitated discussion:

1. Can I sell my product across multiple geographies?
2. What is my level of compliance across products?
3. Can I make informed decisions about material/substances used by suppliers?
   - amount of material/substances
   - material exemption based on product type and category
4. Do I have all the necessary information to determine whether or not I am being compliant?
   - Am I able to collect all the required data from my supply chain?
   - Do I have enough information from my supply chain?
5. What compliance regulations and laws impact my product? Do I fall under permissible limits or just manage to meet those limits?

The answers to the above questions not only control product launch but also define an organization's compliance strategy and vision.

With reference from Singh and Kansupada [2] who established a very strong framework on GreenPLM, it is possible to draw close synergies and establish a matrix relationship among six dimensions and three impact areas, as discussed in Figure 2.

Product Declaration

Product declaration is one of most important aspects of a product, regardless of whether it is put on the shelf by a manufacturer or a retailer. The declaration certifies that a product not only meets criteria as outlined by law/ regulation but also has minimal impact on the environment. If a retailer/manufacturer makes the wrong declaration, they could face heavy repercussions, unwanted legal action, and/or fines. Illustration 3 explores an example of failed product declaration.

> A lawsuit has been filed against a leading US based retailer. The lawsuit alleges that the retailer misled customers with false information about their products, which created an unfair business advantage over their competitors, according to AQMD's statement. The retailer could face penalties of up to USD 10,000 for each violation. [3]

Product declaration implicitly constitutes the people aspect of product development—it discusses whether the people working in the factories/plants are given the right working conditions, wages, safety, etc.,

To reflect the importance of the people aspect, Playfair2012 has launched an UK wide campaign. Playfair 2012 wants the organisers of the London Olympics to ensure that workers making sportswear for the 2012 Games will notbe working in degrading conditions, and that all Olympic-branded goods will be ethically produced. Playfair 2012 is co-ordinated by the TUC and Labour behind the Label (the UK Clean Clothes Campaign) and involves unions and various campaigning organisations. [4]

It is evident that various suppliers have been given contracts to support the games. Thus, a supplier's adherence to laws and regulations is critical in order to ensure that the product/service is compliant overall. This is in line with matrix represented in Figure 2.

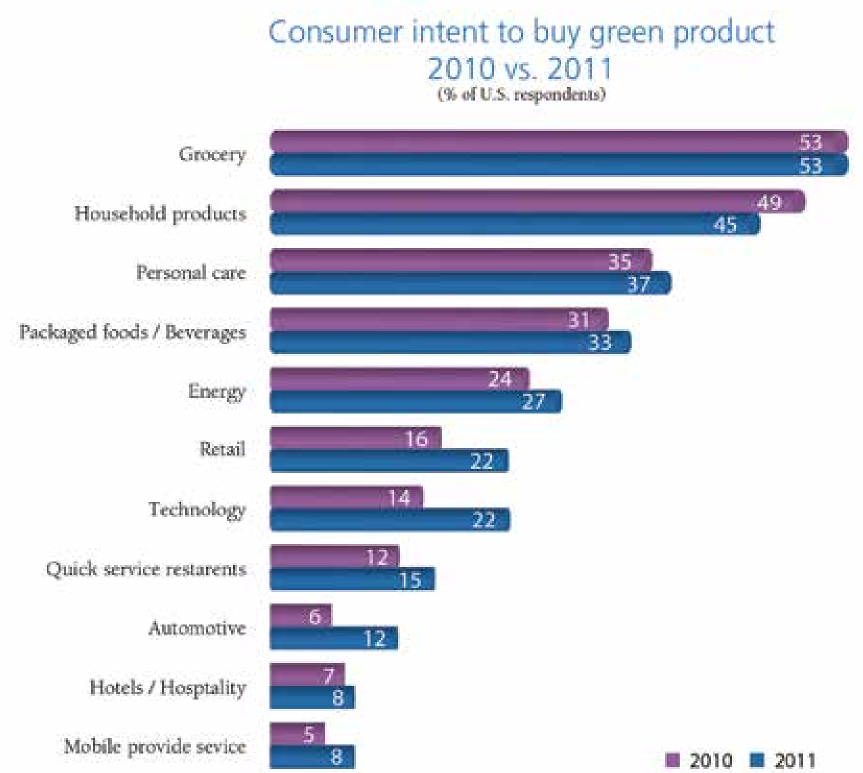
Product Compliance – An Opportunity

A survey published by a leading online environmental magazine [5] stated that consumers are willing to pay for Green and Compliant products. The definition of a green product is bigger in scope as compared to compliant products, although both types of products are similar. Essentially, a green product has to be a compliant product, but the converse statement may not be true.

Figure 4 in simple terms states that "if consumers are willing to pay for green products, it is a great sign for organizations that are being proactive in defining their product strategy".

A survey conducted by UN Global Impact, as shown in Figure 5, reported that the organization's implementation of environmental policies and actions have improved in 2010. Companies represented

Figure 4



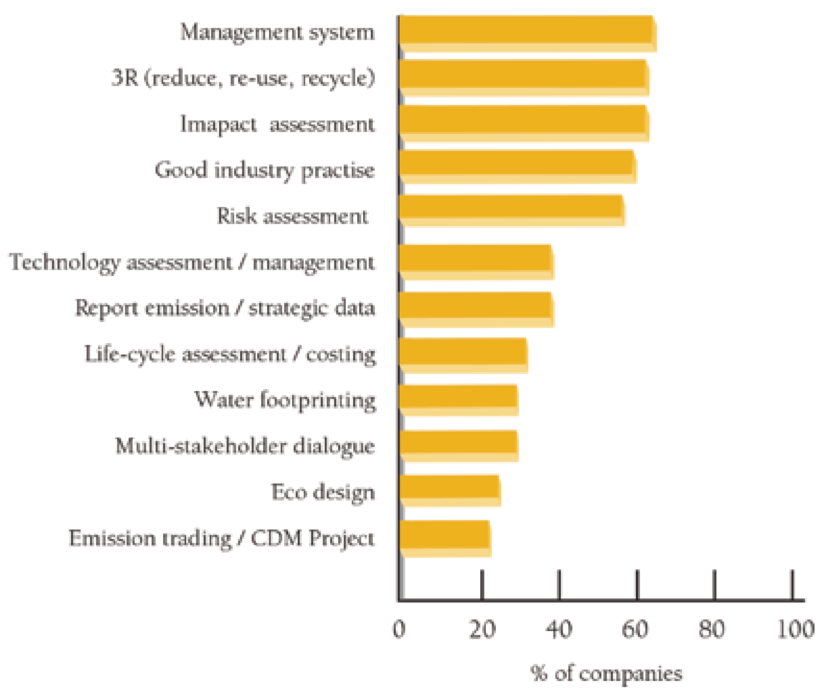
by the survey also took key environmental actions at higher rates in 2010 than in 2009 – especially in the areas of management systems (+15%), life-cycle assessment (+6%) and reporting greenhouse gas emissions (+5%). [6]

The survey results show the percentage of organizations which are regarded as proactive in their efforts towards overall corporate sustainability. The data in figure 5 also demonstrates other aspects such as Life Cycle Assessment, Water Footprinting, Eco-design etc. in addition to the risk assessments which are getting due attention.

Based on the survey, it is clear that there has been an increase in environmental compliance awareness as compared to last year;with the kind of progress the organizations are making, it is not surprising that sustainable organizations will show much higher profit margins and revenue compared to other corporations.

With the Greenhouse Gas (GHG) product accounting and reporting standard [7], which states "By taking a comprehensive approach to GHG measurement and management, businesses and policymakers can focus attention on the greatest opportunities to reduce emissions within the full value chain, leading to more sustainable decisions about the products we buy, sell, and produce" due for release in September 2011, there lies an opportunity for all of us to be a little more responsible.

Figure 5



Summery

Product compliance is a journey, and with increasing global awareness about the importance of compliance and environment, the necessity to adhere to compliance regulations cannot be ignored. Although, product compliance may appear to be a sizeable investment today, it is necessary for future organizational survival and should be viewed as a growth enabler and not just another law to comply with.

FURTHER READING

1. "Greenpeace Activists Vandalize HP Headquarters", Wired.com. Web link: http://www.wired.com/gadgetlab/2009/07/greenpeace-hp/
2. "GreenPLM – Going Green the PLM Way", J Singh and H Kansupada, 2009. Web link: http://www.infosys.com/offerings/industries/consumer-packaged-goods/white-papers/Documents/Green-PLM.pdf
3. "Home Depot Sued by Calif. Counties over Paint VOC Levels", Environmentalleader.com, Web link: http://www.environmentalleader.com/2011/06/08/home-depot-sued-by-calif-counties-over-paint-voc-levels/
4. "Playfair 2012 launches campaign for an ethical London Olympics", Cleanclothes.org. Web link: http://www.cleanclothes.org/campaigns/playfair-2012-launches-campaign-for-an-ethical-london-olympics
5. "Seventh Gen, Whole Foods Top Green Brands Ranking" Web link: http://www.environmentalleader.com/2011/06/10/seventh-gen-whole-foods-top-green-brands-ranking/
6. "Big Firms Continue to Lead on Environment, UN Finds", Web link: http://www.environmentalleader.com/2011/06/07/big-firms-continue-to-lead-on-environment-un-finds/
7. "Product Accounting and Reporting Standard", Web link: http://www.ghgprotocol.org/standards/product-standard

About the Authors

Jagmeet Singh is Principal in the Manufacturing practice at Infosys Consulting. Jagmeet can be reached at Jagmeet_singh@infosys.com.

For more information, contact askus@infosys.com