

Factor analysis of green product design and development from environmental cost accountion(ECA) view

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ABSTRACT

People are starting to care more about their environment once the economy of its country is flourishing and the living standard is on the rise. News reports about the various ecological problems and natural disasters that our planet is facing, has made everyone realize that humans are squandering all of the earth's resources. The large amount of waste that is left behind causes natural disasters and they endanger our society's safety and growth. Now people start to integrate the idea of protecting the environment in every possible field. In other words, people are paying attention to environmental issues. In the past, companies have overlooked the environment and pollution costs, and this has caused companies to miss out on numerous opportunities. Companies have seriously undervalued the loss and actual cost raised by pollution and waste, and their decision makings have been misguided. John Gardner (Former Minister of Education of the USA) points out that these challenges are merely "a series of great opportunities disguised as insoluble problems." And this is the guideline to which stance the companies should take in facing the future. According to Vance (1975), companies that are striving to be more social responsible are losing competitiveness due to higher costs, i.e., in order to produce green products, companies need to spend more time and effort in designing them compared to designing regular ones. Companies should be aware of the higher cost and lower benefits of developing green products, thus green products shouldn't be produced blindly, instead the companies should understand their own expertise and their own characteristics in order to efficiently controlling their product's cost and environmental impact before the start of production. It will help increase the competitiveness of the product when it hits the market and it will produce valuable data for future development and performance of green products. This study will explore how companies react to green products' development after incorporating environmental cost considerations. It will also analyze each life cycle assessment of a green product that a company has to take into consideration before developing it and what environmental cost they will have to manage. Through documents and opinions from experts, this study will evaluate the lowering of the disbursements on environmental cost to make it meet the standards of green products, so as to help companies find ways of cutting environmental cost in order to meet the standard for green products. The study will illustrate a product's life cycle assessment before its initial development and what kind of environmental cost categories it entails, which result should be beneficiary to the development of future green products. Not only will it enhance the efficiency of the development while lowering the cost, it will also enable a more thorough estimation of a products' economic benefits. The study seeks to assist a company in creating a both lasting and efficient manufacturing protocol and to lay out the foundation for a company to adopt its social responsibilities.

Keywords : green products、ECA、LCA、Sustainable Design

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