
APS1013 Applying Innovation in Engineering – Final Team Projects, Fall 2011

Development of Business and Product Strategy for an Anti-Pollution Door Strip

Our client is a company that has developed an innovative air filtration product, an anti-pollution door strip targeted at the multi-unit residential condominium market. The company is led by two entrepreneurs who face a number of challenges within their business analysis, namely validation of their marketing strategies and technical design. Within the proposed marketing strategies, a pricing model that captures the customers perceived value of the product is proposed. Market research revealed the largest markets for the door strip product should exist in North America, and it also revealed that the hotel industry is a promising market. As such the team recommends that trial testing and customer surveys are required as next steps moving forward.

Within the technical design, the issues pertaining to the standardization of building codes were examined and resolved with an easy to implement sizing mechanism. Additionally, the underlying principles which would create the potential for energy savings for a new building were used in the analysis. A Design Failure Mode and Effects Analysis (DFMEA) was also conducted to determine the greatest priorities in terms of potential failure mechanisms of the product. Design for sustainability was taken into consideration and it takes into account all dimensions of sustainable development including environment, economics, and social factors.

In the innovation management field, product life cycle demonstrates the introduction, growth, maturation, decline, and re-innovation of products. The first stage of product life cycle is the product development process, which encompasses all stages from developing a concept to bringing the product to market. Lastly, testing procedures and laboratories were recommended to validate the product and give it the ability to market itself against competitors.