Defining next-generation products an inside look

Article Overview: The persistent success of technology based companies depends on their proficiency in creating next generation products and their derivatives. They found that most of the companies were unable to complete such projects on schedule. The companies also had difficulty developing the derivative products needed to fill the gaps in the market that their next-generation products would create. The root cause problem was in the product definition phase and not spontaneously; all the successful companies have learned how to handle the technical and marketplace uncertainties in their product definition processes.

Paper describes the actions of companies used as best practices which can improve the definition phase of any company's product-development process. They have grouped the techniques into three categories and carefully lay out the steps that companies need to take as they work through each stage. They can help companies capture new markets without major delays and tools used by managers facing the uncertainty that goes with developing products for a global marketplace. The product strategy being first step to create a clear map of company's product stream for next 2 years.

The challenge is to keep no holes for competitors to exploit opportunities. This step defines the product streams to include both products and their derivatives and it may not be final and can be revised at various miles stones in future. The second step to develop project organization which could efficiently execute. There are three important aspects discussed in this paper. First is project team's willingness to take the challenge and

successfully convert the development of new platform products to their business units.

Next to design the perfect size of team along with right blend of skills from definition to development process. Third is ability to match product development resources such as workload of engineers, marketers against the demand of process. Creating new business units for new markets versus using the existing business units is not recommended as per the experiences of firms. The last execution during definition ensures that definition process took place effectively and on schedule. Tracking progress and sustaining urgency is important.

Most of the delays observed were managerial in nature due to lack of monitoring time and management efficiency. Product priorities from customer's view point have been defined in three categories " must have", " should have" and nice to have". The product priority document links to product introduction to company's overall business strategy and keeps product developers focused on features that customer's want in order to hold them. Developing early prototypes has helped companies to introduce their product early customers and get their feedbacks.

Companies stayed in touch even last moment of final product launch to understand their requirements and critics and used it as continuous stream of market information to shape their derivatives ; revisions. Key Learning Points: Product Platform –stream of derivatives products can be efficiently developed and produced. Technology Map –Firm's stream of new products, breakthrough and derivatives to be developed over some future time.

Effectively ways to develop and manage high-tech products ; services. Framework of steps in technology product management process and ways to manage company's success.

Effective Teamwork and coordination among Production Management, Sales and marketing. The role of product management is complicated in high-tech companies, complications due to differing perspectives, conflicting objectives between different departments. Making decisions about the platforms and derivatives by the firms and determination of how much better new version should be and time intervals between versions and positioning of versions relative to each other can be complex issues. The above case discusses the Platform ; derivatives and detail steps with reasons why we should use Platform ; derivative strategy.

Developing partnerships with key suppliers to develop new platform products can be advantageous and helped companies to strengthen their skills, marketing needs, differences narrowed and momentum regained. The various issues incurred during the management of Product development are discussed and how successful companies have dealt those situations. Today's effective product development organization is characterized not only by creativity and freedom, but discipline and control in scheduling, resource use, and product quality. Follow-On Research: References 1. An empirical study on the drivers of management control systems design in new product development" by Tony Davila, Accounting, Organizations and Society 25 (2000) 383±409 Concept of uncertainty and investigates the relationship between project uncertainty, product strategy and management control systems. It also explores whether these systems help or, as argued in the

innovation literature, hinder product development performance. Results supported the relevance of the project uncertainty and product strategy to explain the design of management control systems.

It shows that better cost and design information has a positive association with performance, but that time information has a negative effect. 2. " Product Change Intensity, Product Advantage, and Market Performance: An Empirical Investigation of the PC Industry" by Hua, Stella Wemmerlov, Urban. EBSCO Accession# 21194418 Product change decisions for frequency of new product introductions which can impact product performance characteristics, sales, and market share of several generations of products and firm's long-term survival and growth. This paper explores the impact of a firm's product change intensity.

A conceptual model linking product change intensity to its product advantage and market performance with strategic product change orientation and technology competence as moderating effects is used as a foundation for the study's hypotheses. Firm's product change orientation and its level of technology competence are more likely to have a direct impact on product advantage. More radical changes to PC product architectures may pay off better than relatively minor changes. These results may not apply to other industries due to the specific design of personal computers and the nature of this fast-paced market. . " Software product road mapping in a volatile business environment" by Suomalainen, Salo, Abrahamsson, Simila. Journal of Systems ; Software; Jun2011, Vol. 84 Issue 6, p958-975, 18p Product road mapping enhances the product development process by enabling early information and long-term decision making about their

products for delivery and time to market. Relatively little scientific knowledge is available on the application and usefulness of product road mapping in software product development context.

This paper studied the critical aspects of the product road mapping process for software industry. Results showed insight into the complexities involved in product road mapping. Organizations view product roadmap -a tool for strategic decision making and future directions for products. Implications: * The implications are firms that release new products frequently will have them viewed more favorably by the market than products with lower change intensities. * Firms with higher levels of competence in the product technology domain tend to create products with greater market attraction. In Software Industry, few companies appear to have an explicit approach for handling the mechanisms for creating and maintaining a Technology roadmap. The strategic importance of product road mapping is likely to increase in the future and a new type of dexterity is required in order to survive in the turbulent and competitive software business environment. * Developing partnerships with key suppliers to develop new platform products may be advantageous for companies could also lead to Intellectual property related issues which need to be handled separately.