Improving Efficiency in Product & Process Development
A Case Study on a Consumer Products Creation Process

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Executive Summary

The majority of the US athletic footwear is distributed in a type of “futures business” model. Typically, an athletic footwear company introduces new products each quarter; taking upwards of twelve months to design and produce samples. Samples are then presented to big retailers and they then place orders. However, retailers will not receive and sell the shoes in their retail stores until six months later. The entire process from idea generation to final product launch takes eighteen months, including twelve months of design and six months of production. While this system is set up due to historical reasons, when Nike successfully convinced specialty retail stores to enter into the futures business in the 1970’s, many forward thinking management teams in the industry see a lot of inefficiencies in it, especially now that athletic footwear has become more and more fashion driven. Why should retailers stick to this advance buying pattern? What if retailers could reach agreement with the market leader Nike to eliminate the advance buying? How can companies improve their new product launch process to prepare them for the possible new challenges in the future?

The primary objective of this research is to investigate how athletic footwear companies manage their new product development process to shorten the time to market while increasing the return on investment (ROI). In doing so, an investigation of new product development process at a large athletic footwear company will be provided in this thesis. To protect confidentiality, this firm will be referred to US-Footwear. Process mapping techniques are employed in the analysis of the current situation and the proposed future state. A systematic approach- Stage & Gate™ (Cooper 2001) modeling process is introduced and applied in the case. Implementation issues and next steps are also discussed.
Data for this study was gathered through interviews with US-Footwear Corp. About twenty seven US-Footwear managers, directors, vice presidents and senior vice presidents were interviewed for roughly one hour for each person. They are from the following departments: product marketing, design, US development, supply chains & logistics, sales, merchandising, US outlet, advanced concept development, research and engineering, finance, account and customer service and information systems. Depending on their time and willingness to participate, each interviewee described the current business processes in their organizations relating to the new product creation. Each interviewee was also encouraged to make an assessment of the current processes and brainstorm the possibilities to improve. Additionally, the author reviewed an unfinished version of mapping the new product creation process developed internally by US-Footwear between October 2002 and July 2003. That mapping hasn’t been finished due to other priorities set by that time.

During the interviews, the author was impressed by the way US-Footwear thrives to grow business and by its people; they are very hard working, dedicated and smart. It is not surprising why US-Footwear has been ranked in the top three athletic footwear and apparel companies in the world for decades. The author also appreciated that the interviewees shared with her their insights of the current processes and helped to identify those potential areas that may deserve a further look. Following are the five potential areas addressed by interviewees.

**“Shotgun” Approach**  Interviewees generally felt that USA-Footwear lacked a business plan in new products development. They designed as many products as possible and hoped that some customers somewhere may like some of their products. Unfortunately, due to lack of comprehensive planning and analysis, many products are not successful, and some are even duplicate designs. Other team members in the project felt that product marketing teams changed their minds too frequently, which made their life really hard.

**“Tunnel” instead of “Funnel”**  Currently it roughly takes forty six weeks from an idea generation to sales window closesure. The whole process can be divided into seven milestones: briefing, design, merchandising, line conformation meeting, sales & key accounts meeting and sales window. Thirty eight weeks out of the total forty six weeks
elapse from the briefing to the end of line confirmation, when the company starts to kill the products in large volume. Some people used the metaphor of tunnel with a sudden close towards the end to describe such situation. Consequently, tremendous labor, time, capital and other resources are wasted.

“Burger King” Approach When asked why they made frequent changes, one vice president for product marketing joked that they were actually pursuing a “Burger King” approach- where customers dictate what they want. While they knew “McDonald” approach might be more efficient, where the menu is standard; he felt that it is rather difficult not to listen to his internal customers’ opinion when he was creating the global line. His internal customers included but not limited to country managers, regional managers, key account managers, sales, etc.

Silo Based Communication Most interviewees feel that US-Footwear is a very vertically integrated company, and no one exactly knows what people in other business units are doing. Or even they do, they do not care. As a result, there is lot of design duplication in different business units and considerable misunderstanding among product marketing, design and development. Besides, good practices and resources are not shared through the whole organization.

Compensation & Rewarding Systems Were Not Aligned With Performances Although US-Footwear is a big company, it still appreciates an entrepreneurial spirit-hero and breaking rules are often valued in the company. Probably they feel that in fashion business, which is defined as “emotional business” by some people, it might be a better way to let individuals figure out what is going on. As a result, there is no clear and documented role/job description/responsibility for each position. While this type of entrepreneurial spirit works pretty well in start-ups, it is not the same story for large companies. Besides, while different departments have some type of key performance indicators, these indicators are not necessarily consistent and might not tie up with the overall company objectives. In reality, no one is actually held accountable for costs occurred during the project development.

A review of relevant literature suggests that a systematic framework such as Stage-Gate™ (Cooper 2001) might work well with US-Footwear’s situation. Using the Stage-Gate model, the whole process can be redefined as seven key stages: discovery, scoping,
build business cases, review tech-pack, merchandising, line confirmation and sales window. There are gates, the checking points in between two sequential stages. There are a certain deliverables in each stage. A cross functional team works collaboratively in each gate and evaluate these deliverables in a holistic view. Consequently, these deliverables must subject to the predefined criteria and meet the ‘go’ metrics before they can move on to the next stage. Those that do not pass the gate test will be killed immediately.

Stage-Gate model, if utilized in a certain way, would provide huge potential to shorten the time to market and increase the project ROI because of the following reasons. Firstly, many activities happen simultaneously. Secondly, it is very result driven and customer centric therefore many non value added activities are eliminated. Thirdly, it forms a funnel screening mechanisms so that only selected fewer products will move on to the more time consuming and heavy spending stages. Lastly, it fosters an informed decision making and does away with numerous after-fact changes. By doing fewer activities in a more condensed way, by doing fewer projects in the most time and resource consuming stages and by eliminating iterative changes/revisions in the process, it is foreseeable that time to market reduction and ROI improvements are likely.

Additionally, the author believes that by forcing an informed decision making at each gate, US-Footwear could be able to remove tension, which exists in the current process, out of the system. Design, development and test departments can focus their resources and attention only on the selected products.

However, the author suggests that further studies are needed in order to have a better understanding whether Stage-Gate model works well with US-Footwear’s specific situation. The author also believes that it is not an easy task to implement the Stage-Gate model in real life. A systematic approach will require fundamental changes in the company culture and the way it’s doing business, which is always painful. This is especially true when the company is still profitable and successful. Even after the Company decides to do so, it is critical to seek strong commitment from top management during the project implementation, mainly because Stage-Gate process execution itself may be not as straightforward as it looks. Many questions should be answered and here are some examples:
✓ How difficult is it to reorganize the key activities in the processes?
✓ Who will be in the product committee?
✓ Who will be involved in the cross-functional team at different stages?
✓ Who are the gate-keepers making go/kill decision?
✓ How to set up a generic template—a clear and quantified go/kill criteria and metrics for all business unit purpose?
✓ How to configure the generic template to the unique needs of each business unit considering the different products they design?
✓ Who will lead the cross-functional team communication in each stage?

The author believes that dramatic improvements in time to market should only come from operations innovations rather than from incremental changes to the current processes. While it is painful for a still successful company to pursue operations innovation programs like the Stage-Gate, it will benefit the firm in the long term. Companies that take initiatives in continuous learning and improvement have been shown to realize competitive position in the market.

The author also believes this study results could be applied to fashion business in general. It might provide good opportunities to quickly reap some benefits. For instance, it does not require expensive capital investment. Besides, it focuses internally firstly to achieve the expected improvements. Companies can extend the model to suppliers later on, but it is not necessary in the very beginning. The Stage-Gate model shall be able to provide a useful roadmap for companies to plan closer to market, as the model integrates both art and science in the process, ensuring that the products in design are the most likely winning products. This fits nicely with the fashion business profile.

In summary, this study has clearly shown that companies in fashion business would be able to shorten the time to market and improve the project ROI by utilizing the Stage-Gate™ approach in a certain way. However, the author also suggests that extensive business process analysis, financial analysis and organizational analysis are needed to make decisions. Lastly, it is very critical to seek strong commitment from the executive management during the execution.