Who moved my cheese? The importance of product development in difficult times

“You never want a serious crisis go to waste”

Rahm Emanuel, US President Obama’s Chief of Staff


Introduction

Spencer Johnson’s key message says: “Change can be a blessing or a curse, depending on your perspective. The point is, that we have to be alert to changes and be prepared to go running off in search of new sources of ‘cheese’ when the cheese we have runs out.”

This statement supports the conventional wisdom that there are always winners and losers in every economic cycle. The losers are those that will emerge stronger from the recession than their competitors. These companies will, in difficult times, combine classical management techniques such as operational excellence and efficient cash and working capital management with a new and powerful approach in the field of product development, focused on their most important asset - the customer.

The challenges companies are facing in the current economic environment are mostly related to changing customer behavior. Margins for traditional products and services are declining or products and services are simply not being consumed, forcing companies to re-assess their product development agendas. All sectors are facing these changes. But what is the quintessence of today’s market and economic changes and how can product development play a role in times like these?

How current challenges affect product development management

The financial sector is widely blamed for its role in the current economic crisis, with banks and their investment vehicles being held largely responsible for creating the financial products, such as derivatives, that have been identified as the trigger for the current downturn (‘Handelsblatt’ 25 March 2009). The same financial companies are now exposed to dramatic changes in the development and sale of their financial products, due to a sharp loss of customer confidence in these products and they have already learned some lessons since the beginning of the crisis. They will now have to assess their own ability to develop products that meet the changing expectations of their customers, with regard to risk and product configurations, in particular. Success in the financial sector will inevitably depend on the ability of the companies to meet the changing needs and behaviors of customers (Roit 2009). This trend to develop tailored products according to customers’ current needs is also a challenge in the industry, although this sector is more or less a victim of circumstances.

Despite the temptation to batten down the hatches, leading industry players across the world are reaffirming their commitment to product development and innovation. In recent interviews, A.G. Lafley, CEO of P&G, has reiterated that innovation remains a fundamental part of its long-term business strategy. Last
month, Microsoft founder Bill Gates said that the upturn, when it comes, would be driven by innovation in science and technology. Upbeat pronouncements like these echo the actions taken by many organizations during the last significant economic downturn, earlier this decade; it was then, for example, that Apple famously decided to innovate, rather than retrench, by opening a string of retail outlets. Much derided at the time, Apple stores have built significant commercial and brand value (White 2009). Apple, Microsoft and P&G are world leading brands, but their philosophy can benefit even the smallest organization faced with the review of product development.

Simply put, managing product development and innovation is a challenge in this economic downturn. The crucial question companies must ask themselves is: how do we make a product or service a ‘must have’, at the same time, increasing market share and lowering costs? (Brown 2008). In order to emerge as a winner from this situation, the businesses that succeed will have to embrace the following imperatives:

4. Adopt a cost-effective approach to product development

As the global economic downturn spurs companies to slash costs, many senior executives are intensely scrutinizing their R&D budgets as they do not generate direct cash returns. Many companies are also trying to generate quick savings by asking their development groups to cut costs across the board. Yet such tempting reductions can starve and, therefore, delay potentially promising projects, allowing project lacking merit to linger. Companies should take a more strategic approach to cutting product development costs by upgrading their product development focus, practices and management. Moreover, companies must change the way they manage their new product pipelines and portfolios. The following strategies are key to this new approach.

- **Accelerating time to market.** The speed at which new products are being developed and launched must be increased. Optimizing the product development strategy by accelerating time to market is a powerful competitive advantage in this current business environment (Ofek 2009). The ability to get new products to market ahead of the competition can generate a larger percentage of revenue from new products sold at premium prices and drive higher margins (Kim & Mauborgne 2007).

- **Re-evaluate your product portfolio and product roadmap.** Selecting the most valuable products, despite the high degree of uncertainty in early product development, and the appropriate allocation of resources to these products are key to achieving success in turbulent times.

Following a rigorous review of the product portfolio, the first step is to accelerate the most strategically promising projects. These can be identified by evaluating all of the products across key portfolio objectives such as short-term return on investment, competitive advantage and necessary resources. Product portfolio management identifies potential returns from simultaneously growing top-line revenue and reducing costs by:

- Selecting a better portfolio mix, resulting in more competitive products in the market, raising market share and resulting revenue

**Figure 1: Effect of the acceleration of time to market**

- Typical product lifecycle curve
- Product lifecycle curve with accelerated time to market and persistence
Performance

Insight, however, is not limited to the fuzzy front-end. At each step of the new product development process, a company should integrate customers in the process (Gorchels 2005) as this input can help to build a successful new product.

Leverage product differentiation through innovation

Undoubtedly, the financial crisis is changing the landscape in which businesses operate. While companies remain committed to long-term innovation, budget pressures are making them more selective in their approach. With price now driving many purchase decisions, suppliers need to innovate in order to differentiate the products that offer the value to justify a sustained or higher cost. Companies need to identify where best to focus innovation spend, homing in on those opportunities where innovation can deliver in the short to medium term, ideally giving a return on investment within the same financial year.

Innovation has long been believed by many to be the engine of growth; it can provide growth almost regardless of the conditions of the larger economy. Economies are more likely to achieve growth through the development of products (such as new computer software or pharmaceutical drugs) rather than reductions in the prices of existing products (such as cars or telephones) (Trott 2009).

Many new product ideas may be modest and incremental rather than radical, but the combined effect of many small innovative ideas may be substantial. The development of ‘green’ products and

Reduction overall product development expenditure

Avoiding expenses of initiating non-strategic projects

Avoiding costs through early termination or correction of low value or floundering projects

Reducing labor costs by more effective resource planning and improved staff utilization (Cooper 2008)

Eliminating products that do not contribute to the success of the company (Kono 2007)

Optimizing product costs and complexity

Clearly, it is critical to ensure that cost cutting does not result in killing the product! An intuitive response to cost pressures might be to reduce the cost of the most expensive components of the product or service. But it is worth bearing in mind that costly components often deliver much of the value customers are buying. Cost deployment can help developers determine the value customers place on subsystems and components to help assure that cost reduction efforts do not kill the product’s value.

Unnecessary complexity is often a primary driver of product cost increases. By developing products in cross-departmental teams, and having a central repository for product-related information, product complexity can be reduced. This is thanks to higher levels of standardization and the elimination of waste in order to do more with fewer resources, current assets and constrained budgets. In conclusion, improving the effectiveness of product development is not necessarily about spending more, rather it is about spending less more wisely.

5. Achieve product excellence through customer insights

Managing costs is just part of the picture; the ability to respond to customer needs with a new or enhanced product is a key factor to success (Cooper 2009). However, with more than 80% of new launches failing in the market, minimizing the risk inherent in the delivery of innovative opportunities is crucial. ‘Voice of the Customer’ research, both qualitative and quantitative, helps mitigate risk by providing powerful insights into market and user needs and is in the center of product management’s attention (Sinclair 2008). This approach is a key issue to profitable product development as it leads to developing better and more customer-centric products that create superior customer value.

The success of a company depends on its ability to identify the needs of customers and quickly create products that meet those needs. Listening to the voice of the customer starts at the earliest stages in product development - the so-called ‘fuzzy front-end’. Whether a company follows a formal, well-defined new product development process (e.g., Stage Gate®, Design for Six Sigma) or a less-structured approach, academics and practitioners agree that understanding customer needs at the very beginning of the process improves the odds of product success and reduces time to market. Customer insight, however, is not limited to the fuzzy front-end. At each step of the new product development process, a company should integrate customers in the process (Gorchels 2005) as this input can help to build a successful new product.

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Many new product ideas may be modest and incremental rather than radical, but the combined effect of many small innovative ideas may be substantial. The development of ‘green’ products and
‘cleantech’ services illustrates this point. Innovation in this area has taken on a new impetus, with consumers keener than ever to use products that not only ‘help’ the environment, but also offer tangible and immediate energy savings. Another area is the development of added-value services that are directly allied to existing successful products – services that can both build customer loyalty and provide feedback on customer use, leading to even better products in the future. Research has shown that a marriage of service and product is one mechanism for delivering value that justifies a sustained or higher cost market sectors and generate customer data of much greater quality. This leads to sharper marketing campaigns and better use of budgets (Wooler 2008).

To survive a recession, and emerge stronger when the market starts to revive, a business should also keep radical innovation on its radar. That means that it must look further than its existing product lines and consider strategic innovation across its operations by considering approaches such as open innovation, innovation outsourcing or innovation factory (Brown 2008).

A flexible product development process should not over specify a project’s activities, time frames and outputs. Rather, it should help teams perform basic activities in proven, consistent ways, while allowing them to rearrange these elements in various combinations, as necessary. An important attribute is anticipation: this is different from forecasting, rather than trying to predict the future, anticipation is being sensitive to trends, patterns, and things that seem unusual, which are the harbingers of change. Another attribute is responsiveness, so that the organization can act quickly when change occurs.

and providing products that consumers really want and are prepared to seek out. The M-PESA mobile micro financing service is a good example. M-PESA brings together mobile phones and micro-payment services. Service innovation is all about building closer relationships between suppliers and customers. This increased customer engagement can provide more detailed understanding of

7. **Embrace flexibility in the product development process**

The rules of the game in product development are changing: to compete effectively, companies must achieve flexibility in developing products. Flexibility in this context is the ability to react to change effectively and is an inescapable part of product development.

Other ways to stimulate flexibility are:

- Engaging both engineering and marketing professionals in customer research activities
- Using the concept of product vision to guide design decisions and feature trade-offs
Using front-loaded prototyping to elicit feedback from customers and other stakeholders while the cost of change is low.

- Creation of leading indicators for change of requirements
- Finding and involving lead users who will reveal untapped opportunities

It would be easy to conclude that the more flexibility, the better. But flexibility can be expensive, so it must be used with discretion. Companies have to understand where more flexibility will be most beneficial and, also, to identify where it might be harmful, for example, areas with system-wide impact. Flexibility is the ability to make changes in the product being developed or in how it is developed, even relatively late in development, without being too disruptive (Preston 2009).

This call for a different approach in developing products and companies hints at the fact that the traditional sequential approach may conflict with the goals of flexibility and maximum speed. Instead, a holistic or ‘rugby match’ approach – where the team aims to go the distance as a unit, passing the ball back and forth – may better serve today’s competitive requirements.

Under the rugby approach, the product development process emerges from the constant interaction of a hand-picked, multidisciplinary team whose members work together from start to finish. Rather than moving in defined, highly structured stages, the process is born out of the team members’ interplay. This approach is essential for companies seeking to develop new products quickly and flexibly.

**Figure 2: Sequential versus ‘Rugby’ phases of product development**

**Type A: Linear approach**

**Type B: ‘Rugby’ approach with overlappings at the end of the adjacent phases**

**Type C: ‘Rugby’ approach with overlappings extending across several phases**

**Type D: ‘Rugby’ approach with overlappings extending across several phases and product development decision in an early phase**
The shift from a linear to an integrated approach encourages trial and error and challenges the status quo (Takeuchi & Nonaka 1995). It involves an iterative and dynamic process that needs to be managed in an adoptive and flexible style. This is the holistic approach, although it may not work in all situations, such as very large projects like the aerospace business or for products where development costs and failure rates are extremely high. In those cases, the process does not need to be monolithic, but it can be more rationally divided into two distinct stages: a truth-seeking early stage, focused on evaluating the prospects of novel products and eliminating the high risks, and a success-seeking late stage, focused on maximizing the value of products that have been cleared for development (Bonabeau et al. 2008). This approach may reduce the level of risk and is useful, for instance, in sectors such as chemicals, biotechnology, medical devices, high-technology and semiconductors.

**Conclusion and future outlook**

Why should companies focus on new product development in a tough economic environment? A downturn in the economy is precisely the right time to invest in developing new products, for two basic reasons. First, customers feeling the pain of a recession are likely to be looking for innovative solutions that offer them new ways of increasing profits or reducing costs. If a company has ideas that have the potential to offer more value to a customer during an economic downturn, then they stand to make a handsome gain - but only if they move more quickly than their competitors. Second, for the most part, recessions simply delay purchases, usually creating a ‘pent-up’ demand coming out of the downturn. If a company can offer a better product during this turnaround period, it also stands to increase its revenues - but only if it invests in product development during the downturn itself.

Executives need to advance their new product development process to the next level and ‘recession-proof’ it so that their product costs are developed realistically, the development process is accelerated and reassessed, portfolio management is improved and the focus remains on customer needs.

Companies also need to take a new approach to R&D in the current economic climate; many are turning to short-term, lower-risk projects that focus on minor changes to existing products. While this tendency toward caution is understandable, companies must ensure they do not overlook longer-term opportunities to innovate. Irrespective of the economic climate, companies need to continually improve their existing products and develop new offerings if they are to survive and prosper. Those that fail to deliver innovation, either incremental or breakthrough, will ultimately fail.

**Key words:** product development, product portfolio management, customer insights, innovation, product development process

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**Figure 3: Main factors for product excellence in difficult times**

![Diagram showing factors for product excellence](image-url)

- Adopt a cost effective approach to product development
- Achieve product excellence through customer insights
- Leverage product differentiation through innovation
- Embrace flexibility in the product development process

**Customer**

- Product excellence