Speed To Market 2013

Steve Helfer, General Manager, Clinkenbeard, Rockford, IL

Why do companies fail to profit from new ideas and lose the market or a larger part of market share?

Challenges are ever increasing with global markets. Customers are expecting quicker response times on the solutions they seek. Companies are impacted by forces from all directions, but it all comes down to execution: if you don't execute you will not win the market or launch the product. Execution is stopped by distractions from your core business and your business core processes; none of these distractions are new.

The pressure to increase sales drives the company to launch new products at unprecedented rates. These ideas for new products are dumped on engineering groups that are already busy and are unable to deliver new designs at the required speed and reliability enough to capture the market. Overcoming this hurdle is imperative.

Next the designs need to be built into a prototype since building prototypes conflicts with the monthly production and sales dollars. As managers place the focus of the resources on monthly results and local optima the prototypes fall farther behind schedule. Now the sales force which has been driven to increase sales are overloaded and are losing encouragement as the new product requests take too long to produce and your competitor just stole the market on the next great idea.

These new products have now distracted your operation and your sales force and the ability to execute drops even farther into the abyss. Companies are disrupted as the capacity and skill levels required to build these new products and prototypes are lacking and time slips farther away as the market is captured by those who execute and bring products to market quicker proving that Speed Wins.

Why Most Companies fail to deliver new products costing thousands in profits?

The costs of failure to deliver new products to market rapidly grow at an alarming rate.

Look at the impact on the business. Let's say you are late to market, but no other company is stealing your market… this is a simple loss to calculate. Expected sales monthly x the expected margins = the profits lost monthly! What if there is a competitor who captures the market now; what does the loss look like? Your competition captures the market first, the losses increase from this large amount to a huge amount as the costs to recapture the lost market can cost thousands without the guarantee that you will even recover these markets. Total loss of long

term contracts could actually bankrupt the company and close it for good. The bottom line is companies just lose focus and the projects go late to market.

Why do companies lose focus when their future success requires that speed to market is achieved?

Distractions kill your chances for success. These distractions may be as simple as too many projects, or too many products to develop at one time. The conflict on resources working on the current production vs. the future project with the current month's shipments winning out stalls the development process project. Understaffed engineering departments and machinists that don't have the time to focus on the building of prototypes needed for success will also stop the project. Engineering and Machinists are pulled off projects and prototypes to "firefight" today's issues on the production floor again stall the process. Lastly the skills are lacking to take ideas from sketches to prototypes or samples.

Why does the production of prototypes/samples fail to meet the schedules?

Equipment in-house is not designed for rapid prototype production. Most production machines lack the visibility and flexibility as they were purchased for a set production family. If machinery is in-house, it's not dedicated to prototype production and production of current products happens first: the development project stops cold. Staff is not dedicated to the success of the prototypes as they are supporting current production first and foremost. Line Managers focus on shipping the day, the week, the month and not on the long term future as bonuses and accountability is measured based on these measures.

What does it take to be Successful at rapid prototype building?

Build an Engineering Team that is cross-functional: Design engineering, Materials engineering, CAD/CAM skills, Tooling engineering, Process engineering, Machinists and Quality engineering. Next you need to setup a supply chain for material availability. Rapid casting deliveries demands that you must have pull with suppliers you choose and your suppliers must have raw stocks assortments of the material you will require.

Machinery must be purchased for the process. These machines must be 100 percent dedicated to the process to ensure availability. Machines need to be beyond simple CNC Lathes and Mills as the time to setup and re-setup to machine complete parts will slow the process again. Using 5-axis CNC machines (such as the 5-axis machines at Clinkenbeard), lathes with live tooling, assortments of several hundred-thousand dollars-worth of cutting tools for those machines, and CMM capability to ensure process output is fast and correct.

The capacity of the system must be flexible and meet the high demands on delivery so one day you may have the team sitting doing nothing and the next day need two or three 5-axis machines. So determining how much equipment is needed could be very challenging. Zero Conflicts "Production vs. Prototypes" will require a dedicated

Team and a dedicated Department with the maintenance people.

Does this scare Top Management to know that building the team and the department with machines commits millions to the process so that most Managers will run from the idea and look for alternatives? One option of developing in-house talent looks bleak as the staff takes years to build and train and then is idle when the project list is short and spends millions on machines and tooling without knowing what the future looks like. If the floor space is not available, then there is the cost of another building added on to the development.

Alternatives to Building your Own Team is to Hire an Expert

Develop a partnership relationship with a company that has the Team and equipment in place to make your project a success becomes very attractive. Avoid the costs of lost business from late releases to market on new products, avoid years of training a team, and avoid the capital costs of building the operations and purchasing equipment. Avoid the idle time of your team when projects are slow or nonexistent. What stops some companies from taking this path is the feeling that they lose control of the projects or product design. Control of the Lead-time of the project is in hands of someone else and the biggest fear is that the partner's service costs are high cost.

What really happens when you partner with a solid performing prototype company?

Project control increases as the correct partner has the resources to support the project. The partner works one-on-one with your Design people to ensure the output meets the requirements. Lead-times are reduced as the partner is a specialist and resolves issues quickly. The partner has the sub-tier suppliers that respond and deliver quicker and better than anyone. The cost topic is simple compared to missing the market or being late to the market; the costs are lower and are recovered quickly. If you compared the costs of building your own Team and purchasing the equipment to the costs, the cost is pennies on the dollar lower and has the flexibility to only pay as you need the resources. So this quickly becomes the winning choice.

Key advantages to picking the right partner is that you are in control of the project and the partner has an organization focused on prototypes to run on schedule with quicker Lead-times and lower costs. Speed-to-market is quicker and "Speed Wins". Here is a short list of how you can find the right partner: what to look for and what ask.

- Selecting a Partner
    - Partners need to fill the gaps and be flexible; how much open capacity is there?
    - Must have a proven track record; check references.
    - Must think, breath and live 5-axis machining. Take a tour and see the operation in action.

- Must have pull with other contacts for rapid sub-sourcing. Ask about the lead time any sub-sourcing will have.
- Must have high quality mindset to look at every part that goes out the door; look for AS9100 certifications or other quality systems.
- Be the Fastest you can find. Hiring just looking at saving 10 or 15 percent on price may cost you thousands in market losses in the end.
- Must understand how to take 3D models to production. Talk to the people on the floor that actually do the programming and machining and ask questions about the process.

For more information visit www.clinkenbeard.com *[1].*

Source URL (retrieved on *12/18/2014 - 1:41am*):
http://www.impomag.com/articles/2013/01/speed-market-2013?qt-recent_content=1&qt-digital_editions=0

Links:
[1] http://www.clinkenbeard.com/