Campbell's Soup Case Study

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Management of Technology: Managing Resources of the Technological Firm
MGT 6772
Georgia Institute of Technology
Spring 2018

1. How do you explain the current status of Plastigon after four years of effort?

Campbell Soup Company initiated the Plastigon project in order to introduce a new and innovative microwaveable soup into the food market. They attempted to achieve sweeping innovation to perfect the microwaveable bowl and develop shelf stable soup all in this one project. By design, the Plastigon line involved 6 sections: blending, filling, sealing, cooking, incubation, and secondary packaging, which all required new and sometimes one-off machine designs to accommodate. As such, to further create problems, engineers were responsible for each piece of the line and did testing, and debugging of the modules separately, not as an entire system. The plant managers in Maxton also did not deploy the resources necessary to run and test the full line concurrently due to their hesitancy to adopt the new product line until proven operational. They also failed to recognize from the beginning the degree of differences between the frozen foods and soup lines. For example, the filling stage that also involves cooking (which the frozen food lines did not have), engineers realized the bowls were deforming after they cooked. To solve this problem, they changed the line parameters which slowed down the production speed. Eventually, they were able to get correct values to prevent the bowls from deforming in the cooker, but then realized they had to again change them after the bowls were filled with soup and not simply water. Another example is the fact that the nozzles were splashing onto the rim of the bowls, preventing the lids from properly sealing.

Campbells' lack of centralized focus between their segmented directives has led to internal competition between products trying to target the same market. Without a clear, company wide directive, each segment was working on their own. McGovern began the development of the Plastigon line without proper market analysis. In doing so, he failed to recognize (and so did the rest of Campbell's) that the other internal developments were beginning to counteract each other. Furthermore, the best end result for Campbell's of increased profits from microwaveable sales could have been created with a unified approach into the market segment from the red and white soups division. With no current shelf stable microwaveable soups, they could have easily introduced a few new products to capture some more of the soup market. The marketing manager for the red and white soup division summarized it best when he said that by increasing the market share of the red and white brands by one or two points, they would end up with more profit than all the sales projections from all of the segments of Plastigon, DRG, or brick pack soups combined. Overall, Campbell's (and McGovern himself) failed to remember the type of positioning strategy they needed to operate in. Their product focus is that of a flow shop with a commodity product. By introducing sweeping engineering strategy to develop the perfect solution to a microwavable bowl they lost their competitive advantage to mass produce individual containers of soup for low cost as the containers were expensive and they could not produce enough product due to line speed limitations.

Other major issues came from the geographic separation between the headquarters and the Plastigon line in Maxton, NC. Although the plant had ample space and was efficient, the engineers were not located there and had to travel as much as 30 times per year to help set up equipment. This caused extensive turnover of the team and lack of efficient communication, which is essential for this type of project when everything is new.

2. What should Elsner do about Plastigon?

There are many issues for Elsner to sort out of the disaster that is the current state of affairs of the Plastigon production line. There are only two foreseeable options, however, for the future of the Plastigon line. Either to scrap the program or to significantly alter the focus of the line. Our recommendation is for Elsner to end the project, and use the tools, knowledge, and equipment developed on this project to apply to other initiatives within the company.

At this point he runs the risk of falling into the sunk cost fallacy as Campbell's large investment ($10 million plus) into the project makes it difficult to abandon. The first step is to halt current investment, development, and production and do a thorough market analysis of the feasibility and sales potential of introducing the Plastigon line, especially amidst the rise of competitor products both within and outside of Campbell's. If the market analysis proves that the future economic incentives for Plastigon do not improve, they will not recover the initial cost and will incur a greater loss of revenue than halting now. This is evident by examining some brief numbers out of the economic analysis between different containers shown in Exhibit 10. The estimated sales of Plastigon is $200 million, and with wholesale price per unit suggested to be $0.85, expected sales numbers would be approximately 230 million. However, with a (low end) cost of $1.49 per unit, the total cost to Campbell's is currently approximately $342 million. Obviously, these numbers would see Campbell's operating with significant losses. Even with the possibility that learning curve effects would reduce the price of the containers by half (from $0.28 to $0.14) the end results would still cost around $310 million and would take another 3 years to achieve the lowering of the container cost. The other facts to consider is that after 4 years of continual development, the project would require further investment of new filling machines, and would take another 6 months to get the line running at 100 bowls per minute (although the target was 200) according to Gardner.

If, however, Elsner decides not to scrap the program entirely, the Plastigon program needs some major improvements. Campbell's needs to change their management and organizational structure as well as improving coordination and communication between the parties involved in the project development. With the decentralized and segmented nature of the development teams, they all operate individually, which leads to lack of cohesive actions for the overall benefit of Campbell's. The rapid expansion of the Plastigon line, as well as the geographic separation of the engineering teams caused many avoidable problems. This separation caused excessive travel, team member turnover, and inefficient communication lines as the team was not together and local to tackle issues in a unified fashion as they popped up.

Another change would be that the market focus needs to be altered. It is not significantly different than the DRG soups and is therefore losing market basis to another product already within Campbell's. Further as the cost of the container is expensive, the only way the margins are going to improve is for the final product cost to increase further. To accommodate this the marketing focus of the Plastigon line should be for it to be a premium product that is significantly different from other microwaveable products being developed by Campbell's. Another suggestion would be to look further into alternative packing solutions to reduce the cost of the containers and improve the margins for the sales as would be required with their flow shop approach for these products.

3. What can the firm learn from its experience with Plastigon?

The Plastigon experience should be used as a learning experience for the future of their new product developments as it is clearly not a success story for Campbell's Soup. Although their market share on soup products was nearly 60%, they still had to face many new challenges, both managerial and technical, when developing their new product of microwaveable soups.

One of the first mistakes was in determining the specifications of the target product, microwavable soups. The case clearly indicates that there was not enough conclusive market research done to understand what the market wants from the product. McGovern felt that the investment in microwaveable products was a prime necessity for Campbell's to maintain their competitive advantage in soup and pushed his own initiative. Their end market analysis concluded that the Plastigon bowl (with the most features) was the most desirable, however, this concluding survey between different packaging did not include the prices of the container which could have significantly swayed these results. This prevented any conclusive evidence that the customers perceived any value added due to the additional features of the Plastigon bowls. Early and comprehensive market analysis could have directed Campbell's to one of the other microwaveable options that were discovered later (DRF, brick pack, etc.). Furthermore, a unified overarching goal from Campbell's would help each of the individual branches (red and white, R&D, etc.) operate cohesively in pursuing that goal.

Proper product and process integration was another lesson to be learned from the Plastigon experience. Considered to be a modular project, teams were assigned to different modules of the line and the system was not considered holistically. As a result of this, testing was done on the whole system a limited number of times and high-level problems that involved two or more subsystems were not detected and addressed. This is exemplified when, after 4 years, Gardner suggested required equipment changes in the nozzles to fix components of the assembly line to boost overall production. By developing each component individually, it also prevented further iteration of the assembly line design.

Campbell's also needs to learn better management of their resources. After having the prototype developed, they decided to install the Plastigon line in a regional plant in Maxton, NC, which resulted in the engineers having to travel from their headquarters in New Jersey often to set up equipment. The process structure itself was also aligned against collaboration between the design and plant engineers because the group in Maxton would not get involved until it was a proven system. Since the plant managers did not get involved, they did not contribute to an efficient process application in the overall plant design because the line could not operate all together very often. One solution would have been to locate the engineering team directly in Maxton for more efficient communication and development during the process. Another may be to change the performance incentives of the plant managers away from being month-to-month to prevent suppression of innovation and nervousness around operational standards. A further step would be to adopt a project management waterfall strategy to keep all of the pieces of the project in line and on time. This continual review and evaluation would help remedy the situation where the engineers did not know how to solve the problems due to them being "new to them" because it would have been recognized much earlier.