

Karel, Yuki, Nate, Tony

Professor Kohn

Medisys Case Study

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Our Recommendation for Going Non-Modular

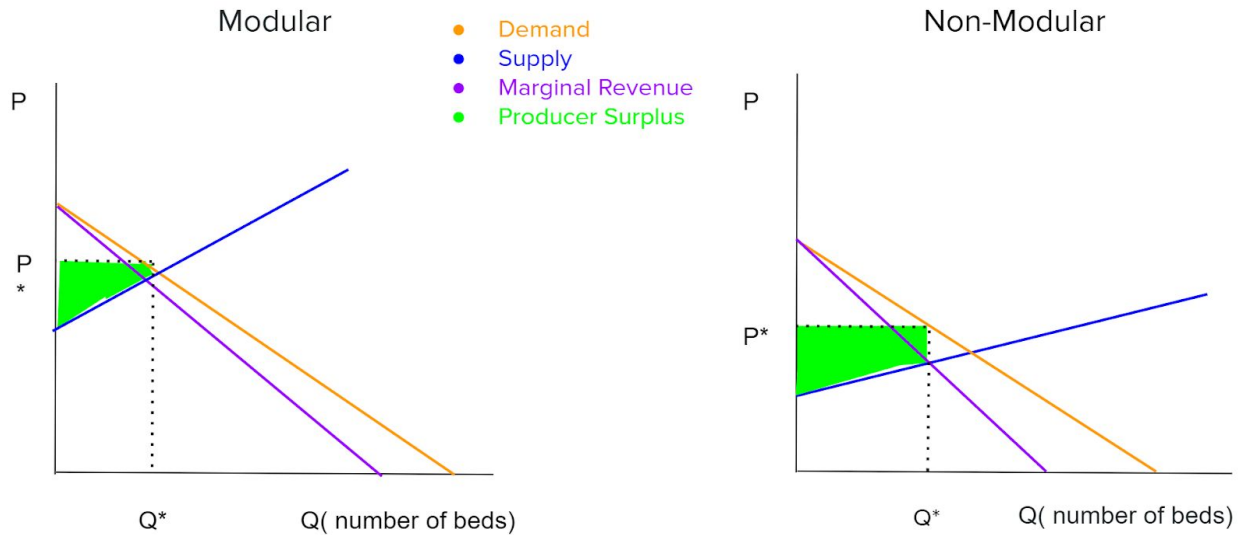
Dear Art, based on our analysis of the current state of the IntensCare product development team, we recommend that Medisys produce a non-modular device on a shorter timeline. This strategy will give IntensCare a **first-mover advantage** and create a short-term monopoly in the market.

Ultimately, launching a non-modular product with speed aligns with your personal goal of **rapid growth for the company.**

There are several core management problems we identified that have made it difficult to meet necessary **deadlines for product launch**. Besides the obvious lack of **time**, no single team member within the IntensCare team understands both production/engineering and business problems, creating a **lack of trust**. Furthermore, since engineers are assigned to multiple projects at once, the time engineers can devote to the IntensCare project represents a **common pool resource**. We will discuss changes to the organizational architecture of the IntensCare team that address these core management problems and will make it possible to launch a non-modular product by the original August 2009 deadline.

We begin our analysis by comparing the markets for the non-modular and modular product, ultimately showing that a non-modular product launched on a shorter timeline offers your company **more market power** and **greater producer surplus**. Next, we will identify your two primary factions and explain how to manage them through decision rights, monitoring and measuring, and incentives. From there we will discuss changes to the organizational architecture of the rest of the IntensCare team to ensure that speed and trust remain the utmost priority for all team members.

In our market analysis, we compared the market for a non-modular product at launch to the market for a modular product at launch. Although a non-modular product has a lower degree of product differentiation than a modular product, the **first-mover advantage** created by releasing a non-modular product on a shorter timeline serves as a significant **barrier to entry**. The magnitude of this barrier to entry is increased by the fact that IntensCare is a **durable good**. When combined, both factors create a short-term monopoly, leading to greater **market power** and more **producer surplus** for a non-modular product at launch than would be possible with a modular product at launch. The fact that a modular product is technologically advanced does serve as a barrier to entry in the modular market- however, your more established competitors undoubtedly have the resources to release their own competing product around the same time, cutting into your market share. Because of the short-term monopoly in the non-modular market at launch, you could sell the non-modular product not only to smaller rural health centers, but also to large urban research hospitals, capturing the market for a modular product as well.



Since a non-modular product is standardized, maximum willingness to pay is lower than for a modular product, which is more technologically advanced and scalable. However, given a speedy non-modular launch there would initially be no substitutes, decreasing elasticity in the market. If Medisys were to release a modular product on a longer timeline, it is likely your competitors would launch their own products around the same time, increasing elasticity in the market through a higher substitution effect.

The two primary factions you face by producing a non-modular device on a shorter timeline are Valerie Merz and Karen Baio. Valerie believes she will fail if Medisys were to launch a non-modular product because she is convinced that without modularity IntenCare would lose market share to competitors. Merz must be shown that she can be successful

launching a non-modular product. This can be done by explaining that the **first-mover advantage** associated with releasing a non-modular product on a shorter timeline creates a **short-term monopoly** for Medisys since competitors haven't launched their products yet. This short-term monopoly would lead to higher margins, greater market power, and more profit over the three years Valerie is in charge of running the IntensCare business, especially since IntensCare is a durable good.

Even after realizing that her P&L shouldn't suffer with a non-modular product launch, Valerie would still fear that problems facing product design and production would cause delays that her business plan could not accommodate. Transfer of **general information** between the engineers (particularly Bret) and Valerie has been poor, which is one of many reasons the project timeline has fallen behind. To assure Valerie that the production of marketing copy happens on time, Valerie should have the decision right to request general information updates about engineering progress from Bret whenever she deems necessary. For example, it is essential that Valerie knows when the specs and packaging of the non-modular product are finalized by Bret so she can immediately complete accurate technical installation guides. Transferring information based on need is more efficient than regularly scheduled meetings because it relies on necessity, not a routine. Once Valerie's business plan is under way and she believes she can be successful launching a non-modular product, P&L will be an observable way to monitor and measure her performance. However, there is little need for worry, since in your own words she is 'a real go-getter.' Incentivizing her with a promotion to general manager of stellar performance would only motivate Valerie more to lead a successful non-modular product launch.

Karen Baio represents another faction you must deal with under a non-modular product launch. Because an accelerated non-modular timeline leaves little room for clinical testing, Baio fears that her own reputation, and that of the entire company, could be tarnished by a product that fails to meet strict quality and regulatory standards. Karen is known for her patience and persistence throughout the company, yet she has major concerns over Dipesh's outsourcing of software development to India, and is firmly against lead-user testing which Valerie suggested.

Given the time constraints of a shorter non-modular product timeline, clinical testing will not be possible. Under these circumstances, Karen should receive decision rights over monitoring Dipesh in India and be in charge of lead-user testing. At any point in time before the final software is developed, Karen should have the right to contact Dipesh and ask him to trial-run the medical diagnostic software in its current state. Dipesh will have 24 hours after being contacted to send a test report to Karen. In addition, Karen will have the final say on when the externally produced software is ready for integration into the IntenseCare system. Karen will also have decision rights over which buyers of the non-modular product will participate in lead-user testing. For example, if Karen wants to ensure that IntenseCare can properly function in a variety of clinical arrangements, she can choose a small health center in rural Virginia and a large urban medical center in Boston for lead-user testing, and monitor all progress herself until she deems the test results are satisfactory. Having control over lead-user testing and the final say on software integration should provide Karen with confidence that a speedy non-modular product launch will exceed all quality and regulatory standards.

Now that we have provided solutions for managing your two primary factions, we will examine changes to the rest of the IntensCare team organizational architecture to ensure a non-modular product can be brought to market with **speed**. Bret O'Brien, the lead engineer, is experiencing extensive problems trying to package data displays and battery units into the final non-modular product. O'Brien's objectives are to deliver at cost and on time, but given the fact that engineers working under him are assigned to several projects at once, the **common pool resource** of your engineer's time remains a formidable problem with meeting deadlines and speeding non-modular product development.

To address your **common pool resource**, Bret should have the decision right to hand-pick two engineers to work full-time on the IntensCare project. We understand the company has had recent recession-driven setbacks, but releasing the non-modular product on time to achieve first-mover advantage is of the utmost priority. In addition, Aaron Gersen, who came up with the original idea for IntensCare back in 2006, should be by Bret's side helping in any way he can. It is important that Aaron feels that he is contributing positively to the success of his 'baby.' Bret's new decision rights should also extend over scheduling calls with Dipesh to transfer **specific information** about software developments issues and integration. Again, these calls are not scheduled, but based on need.

Although many IntensCare team members think he is just causing problems, Dipesh's goal is to prove that outsourcing software design and development to India can work. His decision rights

regarding final software design and development should remain unchanged, although he will be monitored by Karen from a regulatory standpoint by trial-running the software at her request and by Bret from a technical standpoint through the transfer of specific information about software issues. Dipesh must be told explicitly that a long-term company relationship with India is on the line, a lucrative incentive that should motivate him greatly to deliver a complete software package by the original May 1 deadline.

Given his extensive production experience at Medisys, Jack should remain **team leader**, but he must work on building **trust** between the production/engineering and business sides of his team. We know Jack Fogel is laid back and wants to make everyone happy. In his own words, he keeps “all ends tied together,” and those decision rights shouldn’t change. Jack must be made aware of all scheduled meetings or calls between IntensCare team members at least 4 hours in advance, including the time, place, and parties involved in the discussion. Using his judgement, Jack should have the decision right to determine if his attendance (of a meeting) or presence (during a call) will lead to a more productive conversation or transfer of information, whereby conflict is minimized and trust is maximized. Let’s say that Valerie notifies Jack that she is meeting with Bret at 4:00pm in Room 20B to discuss updates with the final packaging of the customer-size spec non-modular product. Jack is aware that Valerie and Bret have not gotten along well in the past, so Jack knows that he should attend the meeting and act as a mediator. Given his nature of being conflict-averse, Jack is incentivized to create a more collaborative, **trusting** environment.

In conclusion, our recommendation for producing a non-modular device on a shorter timeline is supported by our market analysis, which shows that **greater market power and producer surplus** can be achieved through **first-mover advantage**. Our redesigned organizational architecture addresses all three of the InstenCare **team's core management problems: factions, the common pool resource of engineer's time, and speed**. Valerie should have the right to request general information updates from Bret, and will believe she can succeed in launching a non-modular product after understanding the benefits of first-mover advantage. Karen should monitor Dipesh's trial-testing of medical diagnostic software and will be in charge of lead user-testing, eliminating fears of producing an inferior, unsafe product. Bret should have the right to choose two engineers to work full-time on the IntenCare project alongside Aaron, solving the problem of your **common pool resource**. Lastly, Jack will monitor the transfer of information between team members to ensure that trust is built and conflict is minimized. Launching a non-modular product with speed using our recommendations will lead to the **rapid growth** you desire for Medisys.