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colin co.: New product development

Professor Chong Wu, Professor Hubert Pun, and Zhenhua Zhang wrote this case solely to provide material for class discussion. The authors do not intend to illustrate either effective or ineffective handling of a managerial situation. The authors may have disguised certain names and other identifying information to protect confidentiality.

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COLIN CORPORATE’s headquarters were located in Santa Barbara, California, in a quiet and elegant three-storey building. It was March, and neglecting the bright spring day outside, Kelly Shawn, director of marketing, sat in her office but could not concentrate. Client Jamie Croce’s words lingered in Shawn’s ear: “The Bristol project needs to be launched by Thanksgiving Day. This is one of the most important garment steamer projects we plan to develop. Please make sure everything is on schedule.” However, according to the current original equipment manufacturer (OEM) project-development model, both the project schedule and the project’s quality were at risk of not meeting Croce’s request. Shawn stepped away from the laptop and looked out the window at the palm trees moving gently in the breeze. She took a deep breath. It was time to rethink the next step in the plan.

**COLIN CORPORATE**

COLIN CORPORATE (COLIN) was founded in 1946, after the end of the Second World War—a critical period for the U.S. economy. The business started out manufacturing electronic dry irons. Its original corporate owner, Chris Martin, paid significant attention to product quality and customer service. Soon after COLIN was founded, its dry iron products gained wide recognition. For 70 years, COLIN had been recognized as the number-one brand of garment care products, including dry irons, steam irons, and garment steamers. The garment steamer was a new product category, having been developed only in the past 20 years. With improvements in people’s living standards, the garment steamer became more and more popular because it was convenient, simple to use, and could remove wrinkles from fabrics without touching the clothing, which eliminated the risk of scorching. The garment steamer product accounted for 30 per cent of COLIN’s total sales and 50 per cent of the company’s total profit (see Exhibit 1).

COLIN had a flat organizational structure. The interdepartmental relationships ran in parallel. Under the general manager of the company were seven senior vice-president positions: sales, marketing, finance, research and development (R&D), operations, supply chain, and quality. These senior vice-presidents led their respective teams to perform their functions (see Exhibit 2).

COLIN had its own industrial design and R&D group, and had 20 years’ experience in garment steamer product development; however, COLIN did not manufacture the products it developed. The garment steamer manufacturing was outsourced to OEM suppliers in mainland China. Each year, COLIN developed approximately 10 new garment steamer products. The product development lead time for a new product with a medium degree of complexity was approximately 10 months: two months for the design, quotation, supplier selection, and design finalization; two months for tooling fabrication; two months for production of the first component article, product qualification tests, and certification; two months for the component and assembly pilot and production; and a final two months for product shipment to the distribution centre and to retail stores. During the entire development period, the COLIN project team at the U.S. headquarters were in intensive communication with both the OEM suppliers and COLIN’s subsidiary corporation project team in Zhongshan, Guangdong Province, China.

The OEM suppliers COLIN selected and co-operated with had vertical manufacturing ability, which meant they could complete the entire manufacturing process in house, from the manufacturing of the component parts to the assembly of the finished goods. In this way, the product quality could be controlled to the highest degree. When a new product needed to be developed, COLIN’s R&D team created the design internally, then the sourcing leader sent the design drawings to the OEM suppliers for their production price quotation. In general, COLIN selected the supplier based on factors such as cost, quality, speed of delivery, and service.

COLIN also developed some original design manufacturer (ODM) projects, sometimes working with existing OEM suppliers and sometimes with other finished-goods suppliers. When a customer needed a new product but COLIN’s internal design resources were occupied or the product was targeted at an open price point (OPP), internal development did not provide any cost advantage, and COLIN would then move into ODM development model. Annually, COLIN’s work was made up of approximately 70 per cent OEM projects and 30 per cent ODM projects (see Exhibit 3).

**The Bristol project**

According to Shawn, the Bristol project was one of COLIN’s most promising projects. It could finally resolve the most common customer complaint about garment steamer products: steam did not last long under low temperatures. With the currently available garment steamer products, when the set-up temperature was low, steam would begin to drip after one minute; when the set-up temperature was high, there was a potential risk that the hot steam could damage clothing. The Bristol product was designed to use dual heater plates but a single heater system, which avoided incurring a large cost and maintained a constant steam under low temperatures. COLIN had a patent on this new technology.

The Bristol was targeted at a unit price of US$109,[[1]](#footnote-1) which made it a mid-priced product, although its function would be superior to similarly priced products offered by COLIN’s competitors. If the Bristol could be launched according to plan in fiscal year 2017, it would lead to estimated sales of $20 million, which was very high for the first year of a product’s launch.

Shawn led COLIN’s retail market team and knew that consumers always wanted to see different and special products. She had been employed at COLIN for eight years; she worked the first two years in the sales department and then moved to the marketing department. In an attempt to meet customers’ changing needs, garment steamer brands were constantly innovating—offering new functions, new materials, new technologies, or a new appearance. Retailers such as Kmart and Costco annually reviewed the new products available. Any underperforming products were replaced by new products that offered better sales potential. Shawn commented that “If our company cannot deliver new product on time, and the [currently available] product doesn’t perform well, then our display shelf will be distributed to our competitors. We can see severe competition and how important it is to develop the new product on time.”

Kmart was one of COLIN’S major retail customers. Purchasing manager Jamie Croce from Kmart was a very meticulous person:

We plan to test sales in 500 stores. According to the test sales result, we will determine whether to promote this product nationwide—in 2,500 stores. We will leave the aisle shelf available to Bristol. The company’s website will introduce Bristol one month ahead of its in-store availability. We will also use Twitter, Facebook to recommend this product. This is one of the most important garment steamer projects for us this year; anything going wrong will not be accepted.

Achieving the development agreement with Kmart on the Bristol project was a milestone, but Shawn had no time to celebrate. She felt that a tough journey had just started. One of her major concerns was the project timeline. Customers she communicated with about the Bristol project raised some critical-to-quality (CTQ) product factors such as steam volume and temperature, which had all been revised. Kmart’s new-product internal review procedure was also very slow. Shawn had spent six months following the Bristol project’s progress, which had recently been moving forward according to schedule.

For the Bristol products to enter the market quickly, Kmart required a one-month shorter launch time than for other OEM projects. Reducing the timelines by one month was a big problem, as product development included many tasks: product design, supplier selection, component confirmation, qualification and certification, and mass production of the components and finished goods. In the end, a shorter production development time would also affect product quality. If COLIN abandoned the Bristol project, the discussion and collaboration with Kmart over the past six months would be lost and would become meaningless. Furthermore, losing the project would affect the subsequent year’s total sales. However, continuing with the project meant that the product might not be delivered on time, which could lead both COLIN and Kmart to lose their reputations with customers. COLIN would also be penalized. “It is really a difficult choice,” said Shawn.

Shawn considered all the possible solutions, such as seeking a supplier to complete the design so that COLIN could omit the first component article. Using the ODM supplier, which was usually very fast, could save time compared to going through the OEM project-development procedure. Alternatively, could she identify opportunities to save time in the current OEM procedure? Could any tasks be worked on in parallel? Shawn felt she could not resolve this situation by herself; she decided to hold a Bristol project meeting and to consider the comments of other department leaders regarding how to complete this project on time.

**Current OEM project execution at COLIN**

COLIN currently had no dedicated project manager in new-project development. The Bristol project was being managed by a product manager from the marketing department (see Exhibit 4). Shawn’s team had four product managers: Sally, Daniel, Christa, and Robert. Sally and Daniel had been with the company for 10 years, and they worked well on project management. Christa and Robert had been with the company for three years and one year, respectively, and they were not as professional in their project management work. For example, Shawn had attended a project meeting held by Christa, and one of the engineers, Kevin, had argued with Christa. Kevin had doubted Christa’s project timeline and said he was too busy to complete Christa’s project design on time. Robert had also complained in front of Shawn about the project team he was leading. Sometimes, the quality engineer and the design engineer differed on an issue, and they were quick to argue with each other during project meetings. Their conflicts slowed the decision-making processes and affected the projects’ timelines.

Under the current organizational structure, product managers needed to spend much of their time doing product introductions, maintaining customer relationships, conducting market research, and supporting the sales functions. They did not have enough time to perform their project management role. Delays in COLIN’s new-product development had become common. In the previous year, COLIN had developed 12 projects, and seven projects had been delayed. Some projects had been delayed due to the product manager’s overcommitment to a customer, and some were delayed due to technical issues. The project timeline tracker had also not been developed very well. Sometimes, when a project was developed to the middle stage, someone suddenly discovered a task that needed to be done but had not been listed in the project’s timeline tracker. These problems led the project’s development time to exceed the time estimated in the original plan. In addition, due to time zone differences, when OEM suppliers in China encountered problems and their queries needed a response from the U.S. team, they could not always receive a timely response, and this led to more delays.

COLIN’S OEM project management lacked a common set of expectations regarding processes (for example, using weekly meetings or email communication to manage projects); instead, the management format for each project depended on the project manager’s personal style. Some project managers were very proactive, providing comments and suggestions and following the progress of projects’ development closely; but some project managers relied on other team members to allocate their time to work on projects and exhibited a weaker influence on project execution. Project timelines did not have buy-in from all team members and did not represent the progress of projects accurately.

The quality of OEM products also varied. Among the engineering team, some engineers had worked with the company for more than 20 years. The products they designed had fewer problems, and their projects progressed relatively smoothly when moving to mass production. Some of the younger engineers, however, lacked design experience. The products they designed typically encountered more problems during the development stage, which led to more customer complaints after the products were sold.

Shawn and the R&D director, Frank Pennings, were both aware of these issues, and they considered making changes to the current project management and product design processes; however, other tasks always seemed to occupy their attention, and they had not yet had sufficient time to think deeply about the next steps for improving the processes.

**COLIN’s suppliers and customers**

ALICE CORPORATION (ALICE), one of COLIN’s major suppliers, was located in Xiamen City, Fujian Province, China. Besides providing OEM and ODM garment steamer products to COLIN, ALICE was also proactive in developing co-operative opportunities with other major garment care brands, such as Koninklijke Philips NV (Philips) and the Bosch Group (Bosch)—the two leading brands in Europe and Mexico, respectively—and Akai—the leading brand in the United States. These brands were COLIN’s direct competitors in the garment care business.

COLIN also had a business segment that provided private-label products to large retail customers who had their own brands. For example, Kmart had its own brand, Natural, which included clothing, small home appliances, and other household products. Kmart had no design team or manufacturing factory. Instead, its private-label products were all supplied by business partners or ODM suppliers. The private-label business represented 5 per cent of COLIN’s business. COLIN purchased ODM products from its own suppliers and then supplied these private-label products to supermarkets or big retailers.

Shawn had recently heard that representatives from Kmart and ALICE had been meeting to explore the possibility of Kmart purchasing its private-label products directly from ALICE; however, Shawn was not overly concerned. In the past, another of COLIN’s customers had gone to COLIN’s supplier to buy private-label products directly; however, two years later, the same customer had returned to COLIN. Shawn was confident that COLIN could provide customers with a one-stop solution because of its comprehensive capabilities in R&D, project management, supply chain management, and customer service. Customers that worked with COLIN needed only to clearly communicate what they wanted, and COLIN would take care of everything. However, customers that went directly to the ODM suppliers needed to spend much time discussing product specifications and CTQ requirements, following up on the product development progress, performing quality audits for each shipment from suppliers, and dealing with customer service and complaints regarding product quality. If customers compared only the unit cost, then going directly to the manufacturer plants would lead to savings; however, if they considered the total cost and service efficiency, COLIN was the more reasonable choice for private-label products.

BUREY CORPORATION (BUREY), another supplier that had long co-operated with COLIN, was located in Zhongshan City, Guangzhou Province, China. BUREY had a world-class operating facility and could provide large quantities of high-quality products within a short time. During its long co-operation with COLIN, BUREY had always maintained a high service level. Since it had a substantial manufacturing capacity and consistent high-quality performance, BUREY also provided private-label products to Kmart. However, these private-label products were basic models only, not innovative products. Compared with ALICE, BUREY was weaker at R&D. It lacked core patents and competitively innovative products. BUREY mainly completed the manufacturing process in accordance with the customer’s design.

**The Executive Meeting**

Shawn held a two-hour meeting to discuss the Bristol project and invited her colleagues from R&D, sourcing, quality, and marketing. She began by reviewing the background of the Bristol project, the customers’ CTQ factors, the expected launch time, and the current difficulties. She then asked the team to provide their comments.

The R&D director, Frank Pennings, was the first speaker:

We need to consider the Bristol project very carefully. We should make sure we have enough time and resources to complete this project. If we just speed through this project and push the timing, even skipping some necessary steps, it will be very risky for product quality. In recent years, our NPI [new product introduction] timing has been getting shorter and shorter, meanwhile product quality is becoming more unsteady. Use Orono as an example. Usually, a garment steamer new-product development needs around 10 months. But Orono only took eight and a half months under pressure from the customer. Although we launched that project on time, we received a complaint about a dripping issue soon after it launched. In order to resolve this issue, we had to improve the design, rework the finished goods, and compensate the consumer. Our spending has exceeded US$500,000 for this quality issue. We cannot develop a project similar to Orono at whatever condition.

The Orono project Pennings mentioned was developed in 2014; in order to meet a customer’s timeline request, the project was rushed to market. At the beginning, the marketing department had a very positive forecast for this project and the sales potential was good, but almost within a day, Orono encountered customer complaints. Sales, marketing, sourcing, quality, and engineering—all departments—were pulled in to this emergency. Even today, the customer service team continued to receive complaints from end users about the Orono product dripping issue. “Let’s think about whether we move ahead or put a hold on the Bristol project,” Pennings emphasized.

Shawn responded to Pennings’ opinions promptly:

Although the Orono project was not developed successfully, we have held several meetings to talk about it and summarized its failure reasons, such as lacking customer CTQ [elements], lacking a full qualification test; communication with suppliers was not clear. Now, if we develop the Bristol project, we can just refer to the lessons we learned on the Orono project. This year, our new projects’ quantities are not so high. If we give up the Bristol project now, the new product contribution to sales will be below our target. In addition, our competitor Akai has already posted advertisements on what they will launch—a new garment steamer with constant steam. As far as I know, it is similar to our Bristol project. If we don’t launch Bristol this year, some end users who want to buy our brand will move to Akai. This will be harmful for our brand and our sales. COLIN has been a market leader for a long time. We don’t want to be a follower.

Sally voiced her concerns: “If we decide to move on the Bristol project, how can we select the proper supplier? Are we going to use OEM or ODM for this project? Can we meet the launch deadline?” Shawn found that the meeting was filled with questions, and she tried to steer the discussion to resolving the deeper issues.

Simon Suffert, the senior sourcing manager, spoke up:

Could we ask ALICE and BUREY to quote on the Bristol project? Let’s see their proposed timeline, then make a final decision. BUREY has done some private-label business with Kmart; ALICE has also developed many ODM projects with us before. Their capability is trustworthy. We can rely on them to do ODM design, and our engineer can take responsibility for the qualification and certification. If that works, I have full confidence that ALICE and BUREY can meet the project timeline. The Newport project was developed in that model, and the timeline was shortened by about one month.

Pennings reminded Suffert,

The Newport project was quite simple; the steam volume was not adjustable. That product didn’t need to move. It was an OPP [opening price point] product. Bristol is an MPP [medium price point] product. It has four wheels, and is the first product that can supply constant steam under low temperatures. If we choose to go with ODM, we cannot control the detail design, and the risk of quality problems will increase.

Sally commented:

Supplier selection needs to be considered together with the project development model. If we decide to go with ODM and shorten the lead time, we may go with ALICE. They already had a product with a constant steamer feature on sale in the U.S. market for a year. The product connects with power and achieves a pre-set temperature, and the steam brush will release constant steam. Our patented feature is that our product has a button to control the steam on and off. Regarding the operational experience, COLIN’s patent will be superior to ALICE’s patent. But ALICE’s product is also acceptable, as we learned during market research.

Shawn, who was sensitive to the project’s timeline, responded:

If ALICE has already had a similar product for sale and has a patent to shorten the Bristol timeline and meet our sales target, why don’t we just leverage their patent? Our patent hasn’t been applied on a physical product yet. Wouldn’t doing so just represent a higher risk? If ALICE could just change the product appearance to Bristol and share the existing components from their current products, wouldn’t that be a good way to speed up the time to market?

Pennings, who was reluctant to choose the ODM option, commented:

If we go with ALICE’s patent, in order to share the service part, we would have to change our design direction for the next round of new products and still use ALICE’s patent for our constant steam product series. If this happens, we will be in a very passive position. If ALICE choses to implement a price increase next year, we would be forced to accept. And if we go with ODM but give ALICE our patent, there is no doubt that we will grow our competitor. But if we insist on using our own patent with the OEM option, we can easily move to other OEM suppliers if ALICE has any cost or service issues.

Although COLIN’s dual heating plate patent had not yet been applied on a physical product, the application of the new technology would still take time. Based on his technical experience, Pennings was confident that COLIN could realize this process on the Bristol project in the standard 10 months’ development time.

Luis Almanza, from the quality department, had his own view:

In the past, we have only run the ODM option with the OPP product, and the sales were relative small. According to the sales forecast, Bristol’s annual sales will be over 200,000 units. We should pay high attention to the quality risk. As I heard, although ALICE’s product has been selling for a year, they sold only about 2,000 units. This small quantity cannot prove any product quality reliability.

**Final Decision**

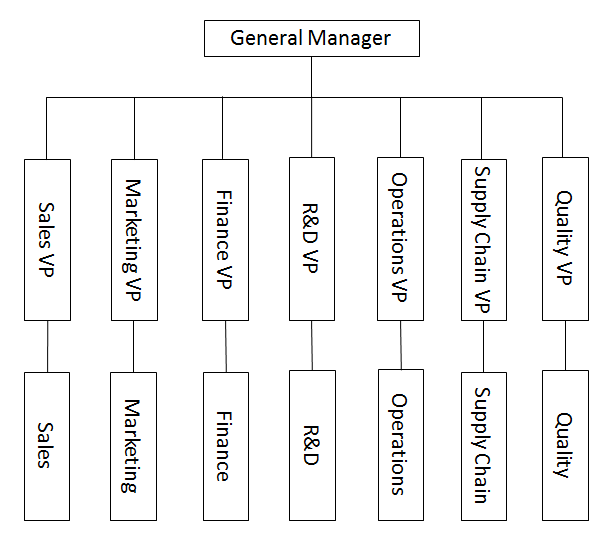
Listening to the heated discussion, Shawn fell quiet. In what direction should the project go? She needed to come to a decision as soon as possible. The meeting had lasted almost two hours, and still no agreement had been made. How should COLIN move to the next step? Shawn looked out the window of the meeting room at the bright spring day outside. She took another deep breath.

**Exhibit 1: COLIN CORPORaTE’s Income Statements, 2015–2016 (in US$ million)**

|  |  |  |
| --- | --- | --- |
|  | 2015 | 2016 |
| **Net sales** | 44.1 | 67.1 |
| **Expenses** |  |  |
| Cost of goods sold | 19.7 | 30.3 |
| Sales and administrative | 6.8 | 10.9 |
| Research and development | 9.2 | 13.2 |
| Depreciation | 2.0 | 2.4 |
| Other expenses | 0.4 | 0.8 |
| **Operating expenses** | 38.1 | 57.6 |
| Interest expense | 1.6 | 2.1 |
| Taxes | 1.4 | 2.3 |
| **Net earnings** | 3.0 | 5.1 |

Source: Company files.

**Exhibit 2: COLIN corporate’s Company structure**



Note: VP = vice-president

Source: Company files.

**Exhibit 3: COLIN Brand garment steamer**



Source: Company files.

**Exhibit 4: COLIN corporate’s Project team**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Department | Project Team Member | Orono | Newport | Bristol |
| Marketing | Product Manager – Sally | ✓ |  | ✓ |
| Product Manager – Stephen |  | ✓ |  |
| Sourcing | Sourcing Leader – Richard |  | ✓ | ✓ |
| Sourcing Leader – William | ✓ |  |  |
| R&D | Engineer – Erik | ✓ |  | ✓ |
| Engineer – Kevin |  | ✓ |  |
| Quality | QE – Luis | ✓ | ✓ |  |
| QE – Tyler |  |  | ✓ |

Note: R&D = research and development; QE = quality engineer.

Source: Company files.

1. All currency amounts are shown in U.S. dollars unless specified otherwise. [↑](#footnote-ref-1)