VanderLande Industries
Parcel & Postal Predicaments

Teaching Note

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Synopsis

VanderLande Industries (VI) was a strong global player in the distribution, parcel and postal (DPP) automation market, providing fully automated systems for parcel and posting sorting centers. VI’s product line had always remained strictly customer-centric, with every product built from scratch according to the customer’s wishes, but with increasing market pressure from new market entrants offering faster and lower-cost standardized solutions, the firm was seriously considering altering its market-responsive, service-focused and integrated product offerings towards a more efficient, modular and standardized output.

This case describes the frameworks and knowledge related to the first set of large-scale, modular and standardized repeated projects that VI had offered. VI hoped to leverage its knowledge and experience accumulated from these projects and replicate the new approach in many future projects. However, VI’s infrastructure was not suitable for such a transition: the firm was entirely organized around customer-specific projects and employees were used to work for individual customers. Jan Hulsmann, managing director of VI’s DPP division, was struggling to find a way to re-organize the division so that it could be both cost efficient and customer attentive.

This case develops and highlights the considerations involved in choosing an appropriate strategy for product offerings. The case describes the difficulties in overcoming the trade-offs between service and efficiency, integration and modularity, and efficient and market-responsive supply chains, when designing or altering a product strategy. It delves into both the benefits as well as the downsides involved with different product strategy approaches, and attempts to make students think about what product strategy is most appropriate for what business and market context.

Teaching Objectives

The main teaching objectives of this case are focused on product strategy and adjusting to changing market landscapes:

1. **Understanding the differences between a product company and a project company.** A product company is efficient and does repeated business: it makes similar or identical products and sells to many customers many times. A project company is flexible: it designs products based on customer needs and delivers them to individual customers once.

2. **Understanding the trade-offs between specialization and standardization, modularity and integration, innovation and cost-efficiency, responsiveness and economical value.** In particular, students are required to examine:
   1. The trade-off between efficient and market-responsive supply chains.
   2. The trade-off between efficiency and service.
   3. The importance of upgrading purchasing to supply management in a complex organization.
   4. The dilemmas in moving from a fully project-based organization to a (at least partial) product-based organization.

3. **Exercising to manage these trade-offs in a complex situation.** These trade-offs are especially difficult due to the consistency in choices required; every process change in one part of the organization affects other parts of the firm as well. Keeping in mind consistency between different functional company areas is crucial. Moreover, every process in a change will bring along a specific cost, which must also be taken into account.

4. **Generating creative solutions to the dilemma(s).** Expected outcomes include increasing modularity, altering the insourcing versus outsourcing mix, and expanding towards standardized products for less demanding customers.
Target Audience

This case is suitable for Master students in business management (MSc or MBA) and can be used in courses on operations management, supply chain management, purchasing, logistics, and general strategic management. It can also be used for executives and managers involved in product strategy.

Data Collection

This case is based on the true (on-going) story of VI. The information used in this case has been acquired via interviews, written correspondence, financial statements, and online resources provided by VI. During a first on-site meeting at VI’s headquarters, an interview was held with Huub Peeters, Senior Group Leader Service Development. This visit also provided the opportunity to acquire a more in-depth look at the firm’s products and operations. A second company visit made it possible to interview a wide range of employees in different divisions of the firm: Sylvester Bussing from the Service department, Paul van Beek from the Finance department, Lodewijk Reineke from the Sales division, Carlijn Totte from the Project Management division and Procurement division, and Henny van Boxtel from the Engineering division. They all provided their individual views on what a possible product strategy change would mean for the operations and functioning of their teams. A third company visit made it possible to talk to Jan Hulsman, the managing director of the DPP division. Additional information was acquired via written correspondence, annual financial statements, and online resources. Used academic sources are listed in the literature review.

Case Analyses and Teaching Plan

Questions to prepare students for class discussion

1. What is the current type of product strategy VI is pursuing? Use the Frei (2006) framework.

2. What are the consequences of a product strategy change on the different parts of an organization (in general)?

3. What would be the effect of a product strategy change on VI’s positioning vis-à-vis its suppliers? Use the Kraljic (1983) framework.

4. Do you think it is possible for a well-established firm to radically change its product strategy positioning within the market place successfully? Use the Frei (2006) framework.

Questions to open the discussion

This case focuses on changing a firm’s product strategy and the effects thereof. The following opening questions assist the instructor in providing students with a high-level overview of product strategies. It addresses identification of products as being either functional or innovative, discusses the different aspects that should be taken into account when designing a product strategy, and introduces various aspects of customer variability as a main difficulty in said design process. This provides a top-level view of the dilemmas faced by VI, which will form the basis for subsequent discussions.

1. What aspects should be considered in designing a product strategy? In the VI case, the trade-off focuses on modularity versus integration.

This question has a broad range of answers, and thus is an interesting question to open the discussion with. Possible correct answers could be related to influence on supply chain management, customer relationships and satisfaction, supplier relationships, profit margins, positioning within the overall market, and revenues. It is also worth discussing whether a middle-road option (a combination project/product company) is a possibility.
2. What is the type of product VI is (currently) offering to its clients? Use the framework provided by Fisher (1997).


VI’s current product strategy is based on customer-specific, highly integrated solutions, with often large projects arriving with unpredictable demand. This puts VI’s product offerings firmly within the ‘innovative product’ segment, as opposed to the functional product segment. The key points making a product innovative are a short product life cycle, a high contribution margin, high product variety (in VI’s case, customizability), a high margin of error in committed time production forecasts, high stock-out rates (less relevant in this case) and low lead times (also less relevant in this case). In contrast, functional products have long product life cycles, low contribution margins, low product variety, low committed time production forecast margin errors, low stock-out rates, and high lead times for made-to-order products. Figure 1 on the right illustrates the differences in functional versus innovative products.

It is possible that in-class discussions will move towards elaborating upon how the product offerings of VI will be altered by a product strategy change, and whether the proposed change will make VI’s products ‘functional’ (as opposed to ‘innovative’). This is of course an interesting topic that will be dealt with in more detail in subsequent questions.

3. Using the framework proposed by Frei (2006), what are the main variability-related issues posing potential problems for VI?


Frei (2006) distinguishes a number of types of customer variability that constitute the problems commonly associated with the trade-off between efficiency and service. These customer variability problems are based upon arrival variability, request variability, capability variability, effort variability, and subjective preference variability. A description and elaboration of the different types of variabilities can be found in Figure 2 below.

For VI, all types of customer variability play a role. The main types of variability that pose issues for the efficiency-service trade-off are arrival variability, request variability, capability variability, and subjective
preference variability. Demand is highly uncertain for VI, and therefore it is hard to predict when a new project may arrive. Customers will have little regard for what a ‘good timing’ is for VI; their arrival variability is substantial. Request variability may be the biggest type of variability for the firm. Customers often demand custom-made solutions for their problems and they can ask for changes even during the installation process. This is the reason why the company is currently utilizing a project-based structure, with each product created from scratch. This significantly increases lead-time and cost for the firm’s outputs. Capability variability stems from the fact that customers may not be able to clearly really express what they want, now and in the future. They may also have difficulty managing the system according to design specifications once turned over. This may lead to debates when the system is not achieving design capacity. Finally, subjective preference variability may play a role. Considering the intense contact VI and its clients have to engage in to make a project a success, as well as the cultural differences the firm experiences when dealing with clients from different countries and cultures, expectations of what constitutes good service may differ significantly. Adjusting for these differences may take its toll on lead-times and possibly even profit margins.

Figure 2: Frei’s (2006) customer variability types table

<table>
<thead>
<tr>
<th>TYPE</th>
<th>CUSTOMERS...</th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrival</td>
<td>Don’t all want service at the same time, or at times convenient for your company.</td>
<td>Grocery shoppers can’t space their transactions such that checkout clerks remain busy and lines don’t form.</td>
</tr>
<tr>
<td>Request</td>
<td>Ask for a range of things.</td>
<td>At a resort, vacationers all want different amenities.</td>
</tr>
<tr>
<td>Capability</td>
<td>Vary in their ability to perform tasks needed to receive service.</td>
<td>A patient has difficulty describing his symptoms, affecting the quality of health care received.</td>
</tr>
<tr>
<td>Effort</td>
<td>Expend varying degrees of energy on tasks needed to receive service.</td>
<td>A warehouse club shopper doesn’t return his cart to a parking lot coral—raising the store’s costs and impinging on other customers’ experience.</td>
</tr>
<tr>
<td>Subjective preference</td>
<td>Have different opinions about what it means to be treated well.</td>
<td>One diner appreciates the warmth of the waiter’s first-name introduction; another resents his presumption of equal footing.</td>
</tr>
</tbody>
</table>

Questions to advance the discussion

After providing an introduction into the difficulties related to product strategy design and their influence upon different business areas, the following questions can be used by the instructor to think about more specific problems related to product strategy changes. These are mainly connected to supply chain management and purchasing, the role of leadership, and shifts in the strategic positioning of the firm vis-à-vis suppliers.


VI’s supply and purchasing function are dependent upon their product strategy. That product strategy is currently one of integration, customer-specific output, and project-based development. VI procures several bottleneck items, e.g. scanners, transport belts, PLCs (programmable logic controllers), that are provided by a limited number of key suppliers, but come in a great variety, as well as more strategic items that have a higher turnover (like drives). If VI would decide to alter its product strategy towards a more modular and standardized product approach, this would imply a substantial change in how the supply and purchasing function would operate. More specifically, currently VI is likely to focus upon acquiring specific components from specific suppliers for a large part of its components on a somewhat ad hoc basis (different suppliers for routine items; the project manager has great freedom in
VI’s current positioning is focused on acquiring items on an ad hoc basis, with supply being relatively abundant, and the time horizon being varied. The cost/price ratio is an important decision criterion. Sourcing will become increasingly global, even in the case of a variable time horizon. Cost management and sourcing reliability will become the primary decision criteria. In this way, the supply and purchasing function of VI will be significantly altered by a shift in product strategy.

6. How would different interconnected business areas be affected by a strategic change, and how can these changes be managed?

It is very likely that a significant change will take place in a variety of areas within the DPP division. For instance, in the engineering division, standardized parts of products will have to be designed, that can be re-used in different projects. In the purchasing and supply chain management division, the focus will be on materials management, and only a limited number of parts will be critical. This change has been described above. Sales will become much more focused on pushing partially modular products, instead of providing products ‘from scratch’. The project management division, too, will be radically altered, as projects will have a ‘base’ of a modular product to start from. These changes will need to be managed effectively top-down; it is likely that strong leadership will be required to make this change a success.

7. What would be the role of the managing director in orchestrating these changes? How important is his/her leadership for this type of process?

Establishing a strong top-down leadership to manage the changes in the different parts of the organization (or at least within the DPP part of the organization) will be essential to make a product strategy change a success. Leadership must be clear on how employees’ functions and goals will change, and what the new overall vision of the organization will be. Lucid communication is key to ensure that employees understand what is expected of them. Since many employees will now have (to different extents) altered responsibilities, with possibly different relationships to other parts of the division and firm, it is imperative that they understand what the most efficient and effective way is to serve their clients. The task of instructing and leading these employees through such a difficult strategic change will be the responsibility of the managing director of the division.


A change towards a more standardized production design will change VI’s position within the Kraljic (1983) Purchasing Portfolio Matrix (see Figure 4). Relying on more standard parts will increase the firm’s strength, as there will be more possible suppliers to deliver the components the firm needs. The current solution of customizing all projects to customers’ wishes results in the supply market strength being rather strong. This gives VI less bargaining power in negotiations, and drives up prices for both the firm itself, as well as for customers. Due to its current position within the higher segment of the market, this is most likely not a very large problem for the firm’s clients. However, a change towards a standardized production sequence will require the firm to push down its prices. Using standardized products as inputs will improve VI’s purchasing strength vis-à-vis their suppliers, and thus shift their position within the Kraljic (1983) matrix upwards and to the left.

Questions to close the discussion

The closing questions provide students with the opportunity to provide solutions to the main problems faced by VI, keeping in mind the topics and questions elaborated upon earlier. The following questions directly probe students whether they believe a product strategy change will be successful, and how the firm should pursue such an option. These questions thus access the core topics this case deals with.

9. Do you think it is possible for a well-established firm to radically change its product strategic positioning within the market place successfully? The framework proposed by Frei (2006) can be applied here.


The difficulty in changing product strategy lies in the trade-off between efficiency and service. Becoming more
efficient implies a weaker customer focus, and vice versa. Generally, firms choose one of two approaches to ‘solve’ this problem: they either accommodate customers in their wishes (“classic accommodation”) or they reduce both customer service and cost, offering a no-frills low-cost option (“classic reduction”). The former implies a high cost to serve, but with a high quality of service experience; the latter implies the reverse. Companies wanting to change their product strategy can opt for moving from one to the other. However, both options have serious downsides, be it in cost or in efficiency. To bridge this gap, there are two other options, namely low-cost accommodation (which focuses on serving highly variable customers with little extra cost via instruments such as self-serving), or uncompromised reduction (which focuses on decreasing variability without eroding customers’ experience). Using one of these two strategies can result in providing a high quality of service experience at low cost. The ‘Overcoming the Tradeoff’ matrix of Frei (2006) provides a graphical illustration (see Figure 5).

10. Do you think VI should change its strategic positioning, and move towards a more modular product strategy? Why or why not?

Based on the above-mentioned framework (Frei (2006)), it should be possible for VI to alter their product strategy towards a more modular approach successfully. VI is now firmly within the ‘classic accommodation’ box of the matrix. Using a modular product strategy, with partially standardized products but with the end product still providing some flexibility, the company may be able to reduce its costs and lead-times while still offering a high-quality product to its customers. This would move the firm to the ‘uncompromised reduction’ part of the matrix, due to the lowering of product offerings while still retaining some end-product flexibility.

A counter-argument may be that due to the inherent nature of the market demand, any movement away from the ‘classic accommodation’ approach will have a detrimental effect on a firm’s performance. As VI’s clients are often looking for highly customized and integrated solutions, offering standardized products may not be in line with customer demand. It is worth asking whether the extra revenues and profits potentially gained via standardization will offset the reduction in high-needs clients’ sales. As an extension to this discussion, one can also consider a ‘middle-of-the-road’ approach; offering both completely customized solutions, as well as partially standardized ones. Whether this is realistic is also worth discussing.

11. What way of changing the firm’s product strategy do you believe will be most successful?

The most obvious product strategy change available is the shift towards partially standardized solutions while retaining some end-product flexibility. This is illustrated in the matrix as the ‘uncompromised reduction’ option. Via such an offering, VI will be able to compete on cost with new low-cost market entrants, while still continuing to use high-quality materials and providing some level of customer service. Said customer service level will decrease, of course, due to lower flexibility, but should still be sufficient to cover all but the most demanding of customers.

**Broader Lessons**

This case describes the difficulties in overcoming the trade-offs between service and efficiency, integration and modularity, and efficient and market-responsive supply chains, when designing or altering a product strategy. It delves into both the benefits as well as the downsides involved with different product strategy approaches, and attempts to make students think about what product strategy is most appropriate for what business and market context.

The emphasis of this case lies in supply chain management and purchasing, an important element of any product strategy. Different product types can be linked to various types of purchasing and supply chain management strategies. This case explains which product can be used best with which purchasing strategy, and attempts to make students consider why certain combinations (links) work well, and why others do not.

This case develops specific ways in which product strategies may be altered. It explains the effects of different product strategies on a company’s positioning within the overall market, and how the cost
versus service trade-off can best be managed. This provides a relevant guiding tool in deciding not only which product strategy to choose, but also why.

Epilogue

At the time of writing, the product strategy debate had not yet subsided at VI. While serious consideration has been given to moving towards a modular product approach, no final decisions have yet been made. It is recommended for the instructor to collect additional, more recent, information concerning the steps taken by VI after the publication of this case.

Literature Review


This article asserts that the type of supply chain (strategy) used by a company must match the type of product that is being delivered to the market to optimize logistics, sourcing, and supply chain management. There are two types of products: functional products and innovative products. The former experience stable and predictable demand, have low profit margins, and have long life cycles (example: many types of basic groceries). The latter have strongly fluctuating demand, with short life cycles and high profit margins (example: electronics). Fisher asserts that functional products must be matched with efficient supply chains (focusing on low-cost), while innovative products fit best with responsive supply chains (focusing on speed and flexibility).


This article discusses the importance of converting a firm’s purchasing function (an operating function) to a full-fledged supply management function (a strategic function). A firm’s need for a supply chain strategy depends on the strategic importance of purchasing, and the complexity of the supply market. Based on these two factors, a matrix can be set up, that distinguishes four purchasing sophistication strategies: purchasing management (low importance of purchasing, low supply market complexity), materials management (high, low), sourcing management (low, high), and supply management (high, high), each which can be linked to four different products, respectively noncritical items, leverage items, bottleneck items and strategic items. Based on the company strength and supply market strength, a ‘purchasing portfolio matrix’ can be set up, which guides companies in how to approach their supply chain management (via exploiting, balancing, or diversifying as counterstrategies against suppliers).


This article deals with the difficulty in balancing efficiency and service due to a variety of types of customer variability impeding on efficiency. Frei considers five types of customer variability: (1) arrival variability, (2) request variability, (3) capability variability, (4) effort variability, and (5) subjective preference variability. Most firms – Frei asserts – choose a low-cost, low-quality classic reduction strategy, or a high-cost, high-quality classic accommodation strategy. Instead of these suboptimal choices, firms could also use low-cost accommodation or uncompromised reduction strategies, that may be able to overcome the efficiency-service trade-off.

References

