



Sales & Operations Planning at:

VIKING Life-Saving Equipment A/S

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This case about VIKING Life-Saving Equipment A/S provides a general description of the company's process as it participated in the project "Improved Competitiveness through Implementation of Sales & Operations Planning," implemented from 2017 to 2018 with funds from The Danish Industry Foundation (www.salesandoperationsplanning.dk).

The case provides the reasons for the company's participation in the S&OP project, the project approach, the performance gains, and the learning achieved. It is important to note that the project was more complex than is possible to reproduce in this case. This case focuses on the central stages, reflections, and company learning.²

¹For a full overview of the tools see: Stentoft, J., Freytag, P. V. & Mikkelsen, O. S. (2019), *Improved Competitiveness through Implementation of Sales & Operations Planning*, Department of Entrepreneurship and Relationship Management, University of Southern Denmark.

²A big thank you goes to all the employees at VIKING Life-Saving Equipment A/S who participated in the project and contributed to group processes, individual interviews, and reading and commenting on written material.



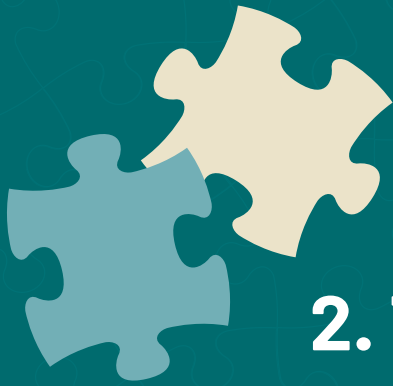
1. Introduction

VIKING Life-Saving Equipment A/S (VIKING) is a Danish family-owned manufacturing company with headquarters in Esbjerg, Denmark. The company was founded by Tage Sørensen in 1960. The company is a global leader in the maritime industry, providing many products and services, including, for example, safety clothing for offshore and fire services, as well as procurement and servicing of security and firefighting equipment for passenger and cargo ships, fishing vessels, offshore installations, military entities, helicopter services, fire stations, and leisure yachts. In addition, VIKING manufactures and services survival craft, personal protective equipment (e.g., fire suits), commercial goods, spare parts, and life rafts. The products are sold globally through 80 sales offices. Production takes place at factories in Denmark, Norway, Bulgaria, Greece, Thailand, and China. Service takes place at more than 280 certified service stations in the world. In 2017, turnover was close 1.9 billion DKK. VIKING employs 2,800 people globally.

This case of sales and operations planning (S&OP) at VIKING focuses on the life-rafts business area. Company leaders decided to start with a pilot area for S&OP to achieve learning and later expand S&OP to other business areas.







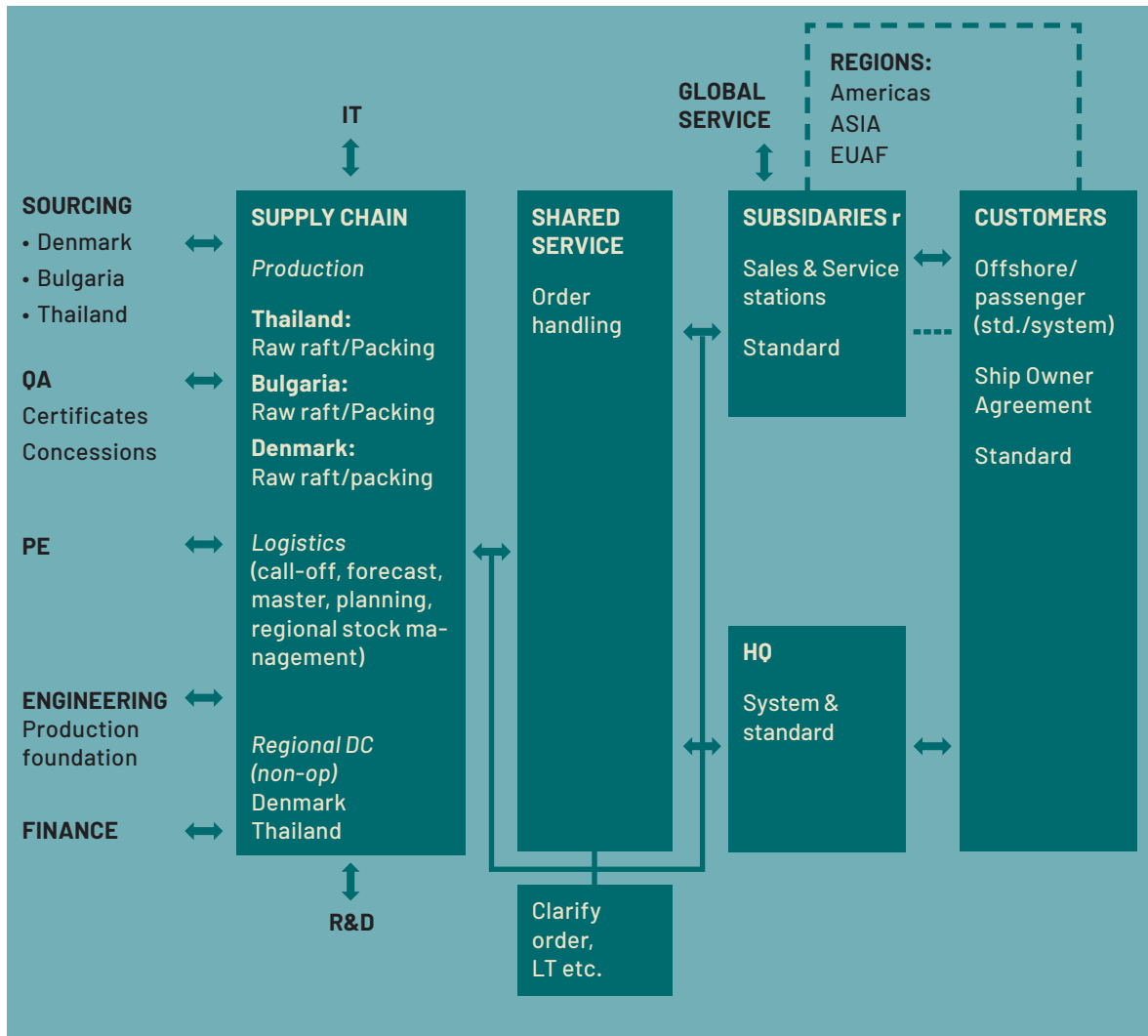
2. The starting point

2.1 RECOGNITION

VIKING COO Allan Østergaard initially recognized the importance of S&OP by signing a declaration of support in mid-2016. The VIKING S&OP project was appended to the project application submitted to The Danish Industry Foundation. Further, VIKING enclosed an expression of interest to join the project as a case company. The company was pursuing a growth strategy; this strategy had increased complexity at VIKING, as evidenced by an increasing number of customers, business areas, products, and locations. In particular, this complexity led to a need for better integration among the company's functions. Improved integration was needed to break down functional silos and to foster greater understanding of the workflow across the sales and supply chain.

Two meetings occurred. First, the Executive Board met in mid-2017. A second meeting involved managers and key stakeholders in early 2018 to launch the Danish Industry Foundation project. The Executive Board gave full support for the project. The CEO communicated strongly the possibility that the S&OP project could create a holistic understanding among employees of the order flow. At the formal start of the S&OP project in mid-2018, the Executive Board worked with a sales and production coordination team that met regularly. The team, however, had focused only on a short-term horizon of two months, discussing number of units and specific orders without consciously using statistical forecasting. Until that point, they had not recognized a need to look further ahead in order to react faster to market changes. The S&OP project was therefore the lever to introduce planning in the medium term of 3 to 14 months.

Figure 1: Brown-paper work based on S&OP at VIKING



Source: VIKING.

Figure 2: Finished brown-paper concerning rafts



Source: VIKING.

2.2 ANALYSIS AND DIAGNOSIS OF THE CURRENT SITUATION

The first task of the project was identifying employees who were to participate in the S&OP project. Some participants were primary actors in the life-raft division; others were secondary. All attended the first S&OP project task to understand the need for the new process. Subsequently, a process flow was recorded for life rafts, which was analyzed by means of the brown-paper method (Figure 1).

Participants in the brown-paper session included 12 employees from sales, engineering, production, finance, logistics, and procurement. As seen in Figure 1, a global perspective on the order flow of rafts was applied during the paper session. The result of the brown-paper session appears in Figure 2. It should be noted that participants brainstormed more issues than could be solved in a new S&OP process. However, these issues were noted and addressed separately later.

On red sticky notes, participants expressed the challenges of the order process flow. On the green sticky notes, participants identified the perceived strengths of VIKING. Duplicates of the sticky notes were posted on the brown paper. A summary of the red and green sticky note content appears in Table 1. The majority of the challenges concerned a need for better cross-functional integration in the order flow, thus supporting the Executive Board's point and confirming the clear purpose expressed at the launch meeting. At the same time, the green sticky notes bore witness to the existence of a solid basis from which to build. Participants suggested VIKING must "stand" on the green sticky notes to solve the challenges written on the red sticky-notes.



Table 1: Summary of challenges and perceived strengths

CHALLENGES (RED STICKY-NOTES)		PERCEIVED STRENGTHS (GREEN STICKY-NOTES)	
1.	Master data quality/data transparency	1.	Culture – The VIKING spirit
2.	Lack of empowerment (many steering groups)	2.	Helpful colleagues
3.	Lack of process ownership	3.	High quality products/strong brands
4.	Communication	4.	SAP ERP system
5.	Lack of alignment	5.	Wide product segments
6.	Cross-functional understanding	6.	Able to earn money
7.	Lack of KPI alignment	7.	Service concept
8.	Everyday heroes are the “firefighters”	8.	Adaptability
9.	To obtain agility at the right places	9.	Flexible production and logistics
10.	Remember to use common sense	10.	Strong sales organization

Source: VIKING.





3. Implementation process

3.1 DEFINING THE NEW S&OP PROCESS

3.1.1 The technical part—“hard wiring”

The new S&OP process was defined in collaboration with senior consultant Ernst Kildegaard from 4IMPROVE Consulting Group. After the brown-paper session, the challenge was to find a time at which all team members could attend to develop the new process. Logistics manager Peter Husted said, “We were hit by the operation. In retrospect, we have allowed that both sales and operations staff pushed meetings several times. Then we ran into the season, and then we had absolutely no time. We were among the first companies to sign into the project from The Danish Industry Foundation but among the last who got it kicked off. Now, we need to run us into shape.” Next, an S&OP process was prepared consisting of three subprocesses: a demand-review, a capacity-review, and an S&OP meeting. Elements of these three subprocesses appear in Table 2. In addition, the S&OP team defined an S&OP calendar with fixed points in the monthly cycle. The S&OP team handled the monthly cycle; at the end of the cycle, the team reported to the Executive Board on

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Peter Husted, Logistical Manager, VIKING.

the outcomes of the process. Three times a year (February, May, and October) statistical forecasts occurred. At the end of each four-month span, an executive meeting was held with senior vice presidents of supply chain and sales. With this practice, the executive level was actively involved in decisions three times a year. During the other months, S&OP process members held managerial capabilities.

The S&OP calendar contained the following monthly activities, each led by a responsible person with specific deadlines:

- Statistical forecast (delivered three times a year).
- Manual forecast.

Table 2: S&OP’s three subprocesses

DEMAND REVIEW	CAPACITY REVIEW	S&OP MEETING
<p>Content</p> <ul style="list-style-type: none"> • Forecast accuracy (statistical and sales forecast) • Over- and underforecasted products • “Unused” forecast • Plan changes since last cycle • Development in sales and seasons • Changes of market situations • Special campaigns, new initiatives, changes in rules, etc. • Geographical expectations to sales 	<p>Content</p> <ul style="list-style-type: none"> • Input from the demand review meeting • Performance: Internal/external • Capacity consumption • Expectations to capacity load • Input to expected demand and changes from demand review) • Upside/downside • What if scenarios • Seasonality • Current and coming bottlenecks • Flexibility (potentials) • Adjustments upward or downward regarding seasonality and demand • New products/factories – expectations and setup 	<p>Content</p> <ul style="list-style-type: none"> • Input from demand review of changes in relation to past plan • Input from supply chain review of changes in relation to past review • Status on forecasts/ expected demand • Forecast accuracy and consequences • Status on supply/capacity • Gap between forecast and supply/capacity • Recommendations to close gaps
<p>Output</p> <ul style="list-style-type: none"> • Final plan for the next 12 to 18 months (aggregated and detailed) • What if scenarios • Assumptions, possibilities, and risks • Conclusion concerning plans vs. objectives • Recommendations concerning “unused” capacity and underforecasted products • Changes in the market situation 	<p>Output</p> <ul style="list-style-type: none"> • Recommended capacity plan for the next 12 to 18 months • Recommendations to what if scenarios • Solutions to challenges with bottlenecks • Recommendations to close gaps between demand and supply plans 	<p>Output</p> <ul style="list-style-type: none"> • Recommendations/decisions on what if scenarios and gaps • Estimates for overall capacity requirements for the next 12 to 18 months • Decisions regarding capacity • Decisions regarding bottlenecks • Communication to Executive Board and stakeholders

Source: VIKING.

- ▶ Preparation and submission of statistical forecasts (every three months).
- ▶ Manual forecast.
- ▶ Analysis of total forecast.
- ▶ Regional needs/demand review.
- ▶ Final adjustment of sales forecast.
- ▶ Engineering/quality forecast.
- ▶ Release of forecast for global planning.
- ▶ Unconstrained forecast consolidation.
- ▶ Material capacity review.
- ▶ Capacity review.
- ▶ Material for pre-S&OP meeting.
- ▶ Pre-S&OP meeting.
- ▶ Material for executive S&OP meetings (every three months).
- ▶ Executive S&OP meeting (three time per year).
- ▶ Feedback to the organization.
- ▶ Upload of decided plan.
- ▶ Budgets for the factories.

3.1.2 The behavioral part–“soft wiring”

During the S&OP development process, two workshops were held to explore behavioral aspects of working in this new process. Management consultants from Mercuri Urval facilitated the workshops.

The first workshop focused on the composition of the S&OP team in terms of individual personality profiles based on the Myers-Briggs Type Indicator (MBTI). Additionally, S&OP theory was practiced through exercises, teaching participants to listen to others at different levels.

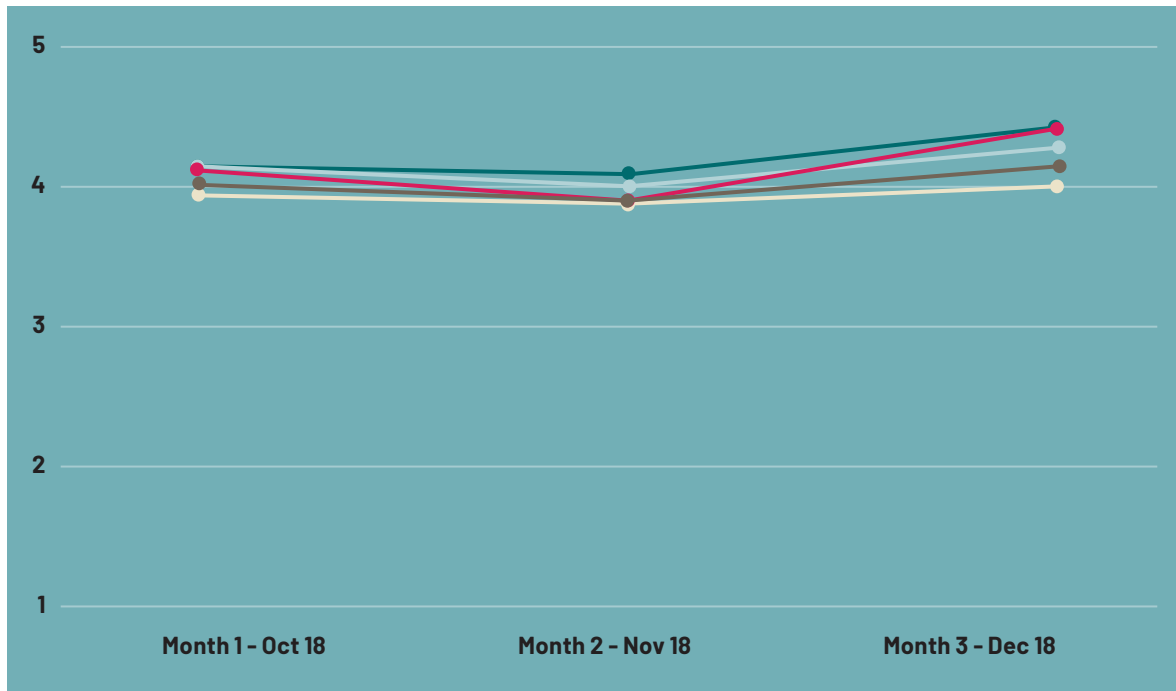
The second workshop focused on behavior. Participants learned which behaviors helped strengthen interorganizational cooperation and which behaviors did not. Discussion focused on identifying Key Behavioral Indicators (KBIs). This process led to the KBIs adopted for the S&OP process:

- ▶ Keep long-term focus on S&OP/format.
- ▶ Integrity.
- ▶ Accountability (quality, preparation, and joint ownership).
 - ▶ Preparation.
 - ▶ Quality.
 - ▶ Shared ownership for S&OP.

Participants discussed whether to start or close the team meetings with reminders about these KBIs. They determined there was no need for such reminders, because all participants were committed to the process. In other



Figure 3: Perceived relevance of KBIs



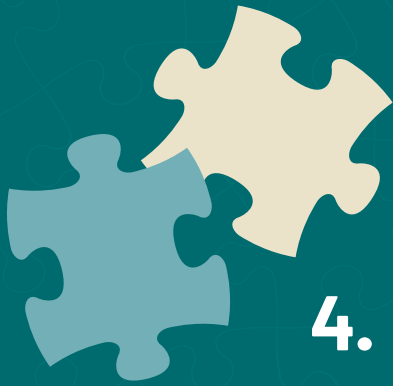
words, team members lived the KBIs; thus, there was no need to articulate them further.

The process with Mercuri Urval consultants was an eye opener for the individual participants and for the team as a whole. Participants found they shared many similar profiles. The process gave new insight into why in the beginning they had found it challenging to decide who should take the task of creating structures and plans.

In addition, the process gave participants new tools to communicate more effectively between sales and operations. For example, after they became aware of each other’s MBTI profiles, the tone and cooperation between introverted operations staff members and extraverted salespeople improved significantly. Dialogue that had previously gone awry was aligned toward the common good.

During the pilot implementation, participants in the S&OP process were asked to assess the relevance of the KBIs applied in this process. The participants responded to the same questions every month, indicating their levels of agreement on a 5-point Likert scale (1 = strongly disagree and 5 = strongly agree). Figure 3 shows the respondents’ average values were 4 or more, showing the KBI focus was relevant for the S&OP process.

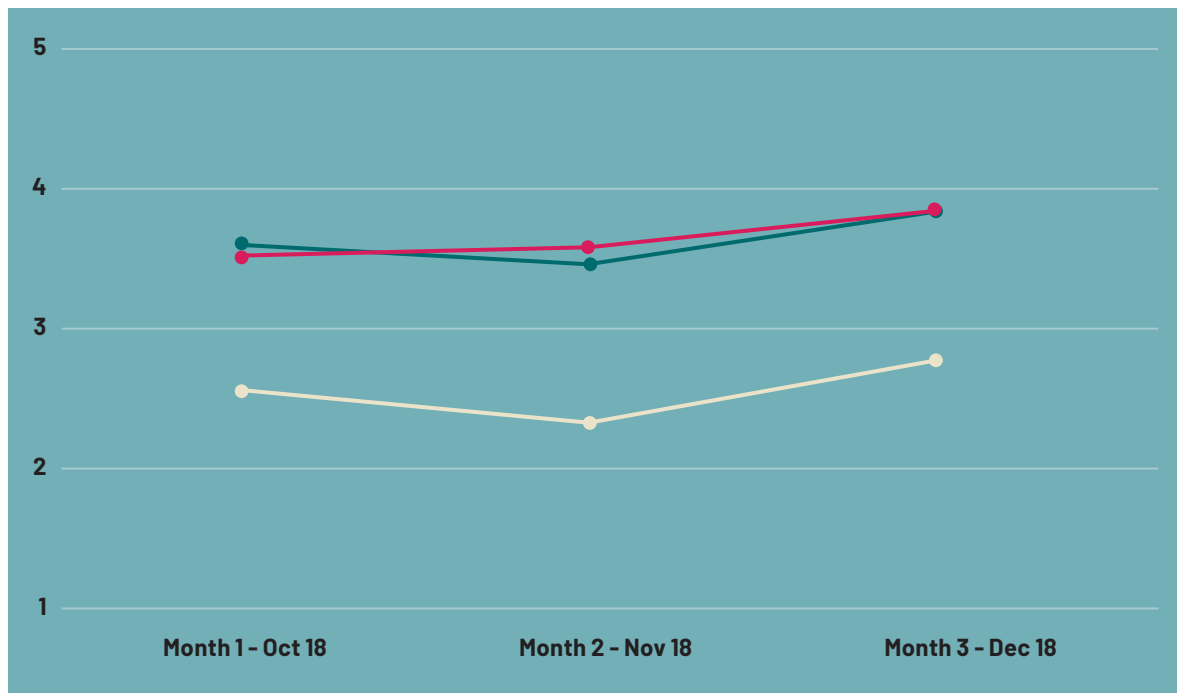
- Meetings are held as planned
- The necessary openness exists between the meetings participants
- Dialogue takes place at a constructive listened level 2
- Debates and discussions are primarily based on facts and not feelings
- There is a reflection about the process and whether the debated themes really grasp the core challenges (listened level 3)



4. Effect and learning



Figure 4: Development in the objective, process clarity, and understanding of roles and responsibilities



- Clear objectives
- Roles and responsibilities in the process
- Haziness in the S&OP process

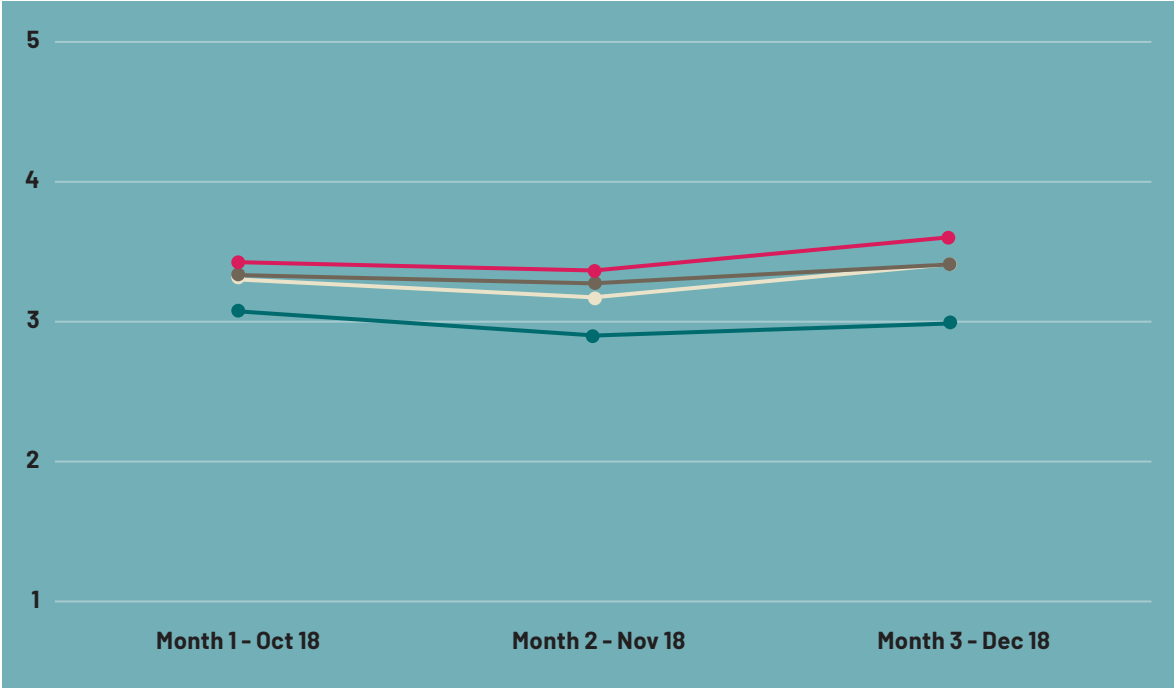
4.1 OBJECTIVES, PROCESS, AND CLARITY ABOUT ROLES AND RESPONSIBILITIES

As seen in Figure 4, the participants in the S&OP process perceived they had achieved better clarity about goals and roles and responsibilities. A requirement in the project was that they should not initiate the pilot implementation before the behavioral part of the S&OP process had been completed. VIKING leaders followed this requirement, although they would have preferred to start earlier and gain some “learning by doing”.

As mentioned earlier, a project management challenge occurred with the S&OP project. Meetings were planned; however, a strong project manager was missing from the process. In addition, the S&OP team may have experienced some kind of “mental fatigue” when they finally met for the last sessions with Mercuri Urval and 4IMPROVE Consulting Group. Several participants asked, “Why not just start now?” and “What are we waiting for?” The S&OP process had begun with a pilot implementation in which participants knew the S&OP project was a 50% solution. Participants wanted the process started. In fact, the S&OP process had gradually improved every time the process completed a cycle. However, Figure 4 shows that the clarity of the S&OP process decreased, which could be attributed to the fact that in the last reporting period, the S&OP manager was replaced.

The participants in the S&OP process were asked to assess their perceptions of readiness for change toward working with more discipline in the S&OP process. Figure 5 shows a change in readiness perceptions equal to “somewhat,” with average values of 3 to 3.5 on a 5-point Likert scale. However, an increase

Figure 5: Development of perceived readiness for change



- Change readiness of top management
- Change readiness of operations/supply chain
- Change readiness of sale
- Change readiness of S&OP process manager

in the average values at the most recent measure showed positive development. These results indicate that participants can benefit from planning and implementing a communication effort aimed at stakeholders in the S&OP process. In a busy workday, people often forget basic S&OP elements about status, challenges, solutions, and next tasks.

4.2 ACHIEVED RESULTS

- Better cross-functional understanding was achieved; mutual insight into sales and operations created respect, which together with a focus on behavior provided a new structure and improved platform for dialogue. Participants moved from thinking “them and us” to thinking “we.”
- The gaze lifted from the short- to the medium-term.
- The company had so many useful data—the data just needed to be excavated and used in the right way.
- VIKING started to measure in hours and minutes (capacity) instead of per pieces in production. This change provided a much sharper steering tool, which S&OP facilitated.
- Today, employees work with statistical forecasts, contributing to the S&OP process.
- S&OP is now on the Executive Board’s map. The S&OP process has become part of the business language of VIKING.

It has been shown that S&OP process has improved gradually every time the process has been through a cycle.

Peter Husted, Logistical Manager, VIKING.

4.3 LEARNING

In summary, the key learning points in the process were several:

- ▶ The project management of the S&OP project could have been sharper (planning, management, and follow-up). Each waited too much for the others.
- ▶ We recommend obtaining better awareness of expectations with external consultants (what they deliver and what they expect from us).
- ▶ It was a positive outcome that there was no organizational resistance, a benefit that undoubtedly occurred because the Executive Board visibly supported the project.
- ▶ It was important to have a delimited business area as a pilot (in this case, life rafts). This learning could subsequently be expanded to other parts of the company, for example, personal protection equipment (PPE), merchandise, spare parts, and service.
- ▶ In this phase with one business area, the S&OP manager role was adequately handled as a secondary function for the primary tasks. But when several business areas are included in the S&OP process, a process, a full-time S&OP manager may be needed.

