

Sales & Operations Planning at: SGM Light A/S

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This case study on SGM Light A/S outlines the company's process as it participated in the project "Improved Competitiveness through Implementation of Sales & Operations Planning" implemented between 2017 and 2018 with funding from The Danish Industry Foundation (www.salesandoperationsplanning.dk).

The case describes the background of 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 include in this case. The case therefore concentrates on the central steps, reflection, and employee 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 to all the employees at SGM Light who participated in the project as well as for the positive contributions to group processes, individual interviews, and reading and commenting on written material.



1. Introduction

SGM Light A/S (SGM) was founded in 1975 and thus has more than 40 years of experience in entertainment lighting. In 2009, SGM was bought by the Italian RCF Group, which shortly appointed Peter Johansen to lead the new research and development center in Denmark. Johansen applied his wide experience and entrepreneurial capacity and, with a team of key staff and a group of investors, bought SGM in 2012. Hereafter, the headquarters was established in Aarhus, Denmark. Although SGM has grown to be a major global player and its main shareholder is Italian, the company still maintains its headquarters and manufacturing in Denmark.

With a focus on innovation and experimentation with new technologies, SGM has composed one of the most experienced research and development teams in the world. Johansen's mission to regain its market position as a leader in entertainment and architectural lighting design has supported SGM's specialization in LED solutions. Along with a constantly growing, highly qualified distribution network and branded subsidiaries worldwide, SGM has established a global presence, showing a solid experience with lighting equipment while launching pioneering solutions. SGM provides three main types of lighting: stage lighting for concerts, theater, and TV; lighting of buildings, parks, and bridges; and LED display screens.







2. The starting point

2.1 RECOGNITION

Before launching the sales and operations planning (S&OP) project, SGM leaders recognized a need for better and more coherent management of the company's sourcing, operations, and sales. Therefore, in 2017, the company hired Alex Thygesen Hansen as S&OP Manager. Hansen had previously worked at SGM and knew many of the challenges the company faced. In addition, Hansen knew the staff who handled daily challenges; therefore, it was natural that he was appointed to lead the S&OP process. The company's challenges concerned sparse coordination between sales and operation activities. Lack of communication made it difficult to link sales with purchasing, inventory, and manufacturing. The company had already introduced an S&OP process when SDU researchers contacted them with an offer to join the S&OP project operated by The Danish Industry Foundation. SGM leaders saw the project as an opportunity to accelerate their S&OP process; thus, they accepted the offer.

The launch and participation in the S&OP project was initiated from operations, whose members had been committed to the project with the aim of improving coordination in the company. To create the best possible foundation for the S&OP project, a comprehensive communication effort took place to foster understanding of the value and insights of the project for the entire organization.

2.2 ANALYSIS AND DIAGNOSIS OF THE CURRENT SITUATION

As the S&OP project began at SGM, there was already relatively broad recognition that SGM needed better coordination between sales and operations. In particular, members of the operation side had noted a need for improved

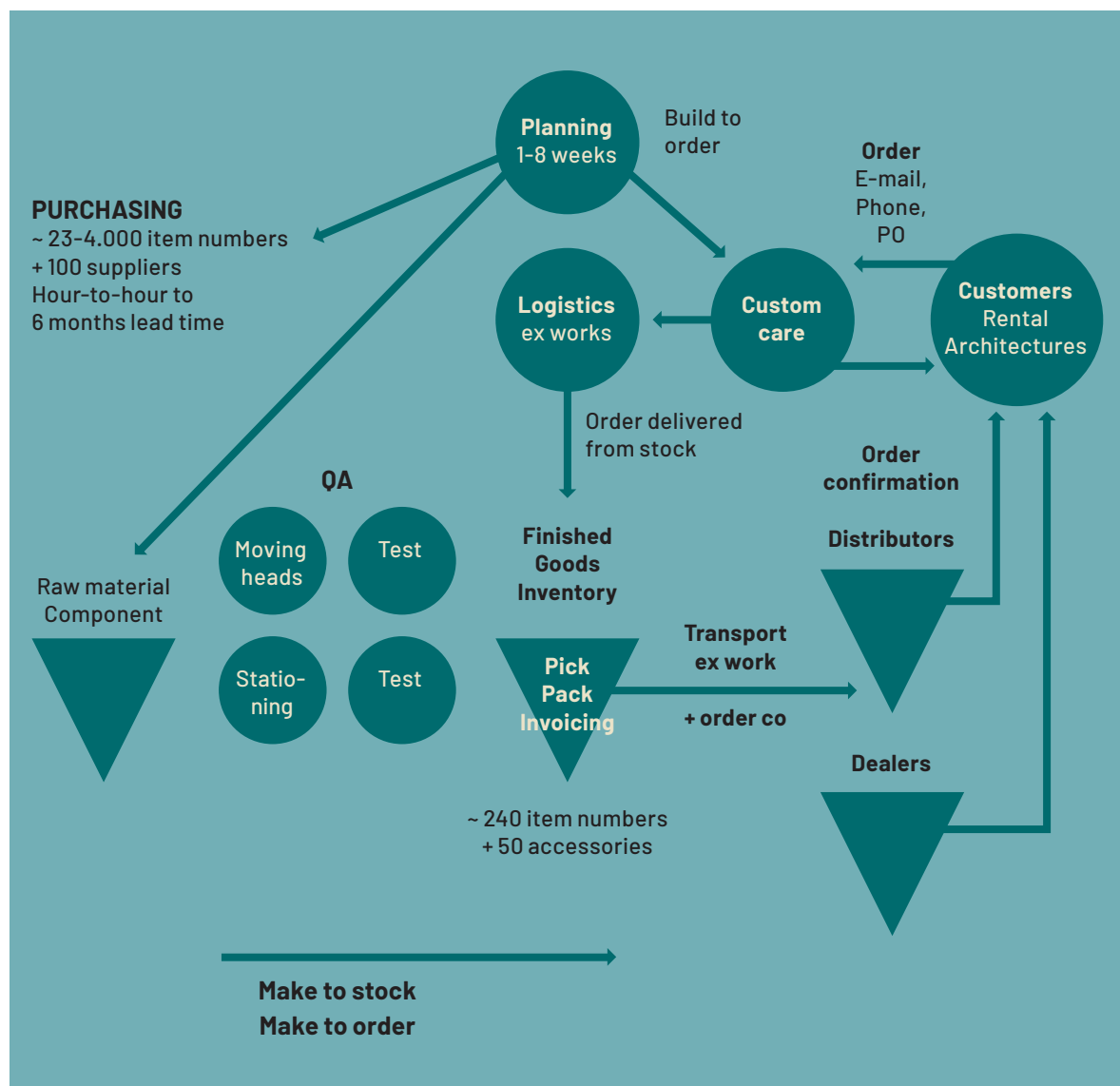
coordination, which could reduce the need for handling rush orders, revising production schedules, and changing supply agreements.

Before launching the S&OP process, the company possessed most of the necessary data. In some areas for which the required data were missing, data gathering tools were developed so the entire S&OP process could be documented.

In the beginning of the project, a brown-paper session was implemented with the aim of identifying key work processes and the order flow through the company. The overall flow appears in Figure 1.

The brown-paper session was held with key staff from sales, finance, and operations. First, employees listed challenges for SGM in relation to sales and operations on red sticky notes. They posted the notes on the brown paper at the relevant points in the process. Duplicates of sticky notes were posted on the brown paper as well. After a round with the red sticky notes, the process

Figure 1: Overall order flow at SGM Light



was repeated with green sticky notes. This time the focus was on the perceived strengths of SGM. After the brown-paper session, the challenges and strengths were summarized in a PowerPoint document, which was presented to the participants to ensure validation and a common understanding of the output of the session. The forces and challenges for SGM are summarized in Table 1.

Table 1 indicates that among the major challenges of SGM was a lack of communication between sales and operations, which was further hampered when changes in orders occurred. Incoming rush orders caused changes to internal priorities and sometimes led to inquiries from suppliers in order to meet the need for responsive deliveries. Further, increased product complexity seemed to be a challenge. To deal with these challenges, the employees pointed to SGM's strengths—for example, being an adaptable, creative organization with employees who made extra efforts to meet customer needs.



Table 1: Summary of challenges and perceived strengths

| CHALLENGES (RED STICKY-NOTES) | | PERCEIVED STRENGTHS (GREEN STICKY-NOTES) | |
|----------------------------------|--|---|--|
| 1. | Lack of data collection and use of market data | 1. | Good tone |
| 2. | Too little planning at a medium-term horizon (from 2 to 6 months) | 2. | Flat organization |
| 3. | Lack of structured business processes (much person dependence and tacit knowledge) | 3. | Culture where one makes extra efforts if necessary |
| 4. | Lack of understanding and acceptance of others' work and premises | 4. | All is possible – possibilities instead of constraints |
| 5. | Lack of improvements processes | 5. | Dedicated employees |
| 6. | Much unstructured communication from sales (a desire for more streamlined communication; staff receive different instructions) | 6. | All wish to do their best |
| 7. | Lack of time to clean up in general (products, components, etc.) | 7. | Creative problem solving |
| 8. | Many changes during the process (Unclear handover/communication in the processes) | 8. | Open for new ideas |
| 9. | Increased complexity of product variants (lack of understanding the consequences for the business) | 9. | Common efforts make good customer service |
| 10. | Fragile handling of project-based sales (lack of solid process) | 10. | We try to improve |
| | | 11. | Fast decision making/fast to respond to market changes |
| | | 12. | Skilled people in key-positions |
| | | 13. | Our AX (ERP) system has more functionalities than are being used |
| | | 14. | Master data/healthy data foundation |

Source: SGM Light.



3. Implementation process

3.1 DEFINING NEW S&OP PROCESS

3.1.1 The technical part—“hard wiring”

At the time of this writing, the S&OP process at SGM had been in operation for about one year. The different roles that belonged to the process were in place. The S&OP manager ensured that the necessary foundation existed for the monthly operations meeting. In addition, the S&OP manager attended a final decision meeting and followed up to ensure that decisions were being implemented.

In the beginning, employees from sales and operations as well as an employee from finance participated in the process. The participant from finance eventually exited the project but continued to deliver input to the meetings. The S&OP manager needed to ensure that the right material was prepared. Gradually, at the operating level, the input quality improved; thus, the process became more self-propelled. Currently, forecasts have been frozen for a two-month period (current month and the following month), while salespeople work to create a window into next year's revenue. This approach has offered some clear advantages—for example, the ability to obtain steadier planning and execution.



Anchoring the S&OP in top management is crucial; it is important to create an adequate understanding of that S&OP is a separate task, that depending on scope even might require its own organization.

Thomas Brams, Senior Consultant, 4IMPROVE Consulting Group.

After a short period, an additional dimension in the form of forecast error was introduced. However, it was difficult to work with this error because sales are project-based. Recently, the approach was temporarily paused. However, a need remains to work systematically to follow up on the forecast. Currently, products are divided in categories of forecasts (A, B, C) based on turnover. At the same time, SGM has divided delivery times of the products into types: Delivery time A: 2 to 4 weeks, Delivery time B: 6 to 8 weeks, and Delivery time C: 10 to 12 weeks. This approach has strengthened participants' understanding of possible gains from the S&OP process.

Key Performance Indicators

At the beginning of the S&OP project, a number of Key Performance Indicators (KPIs) were selected:

- ▀ SGM has successfully applied forecast accuracy at an aggregate level at which the budget and forecast for the year should be comparable. Several attempts have been made to break forecasts into individual product families. However, this practice seemed to be overly ambitious, producing more frustrations than benefits. The work with forecast accuracy has provided much learning and has led to awareness that the supply side is much more aligned with the demand side.
- ▀ Delivery security and lost orders will never be compromised because of the S&OP process. How much delivery security can directly be ascribed to the S&OP process is difficult to measure, but no single order was lost in 2018.
- ▀ SGM has worked extensively with reducing stock levels as a KPI; however, this variable has been difficult to measure for the organization as a whole.

Working with KPIs and the development of new and better KPIs continues. The process has been partly facilitated by 4IMPROVE Consulting Group.

Table 2: Overall project plan

| | |
|---|---|
| S&OP KPI | Initially, a number of KPIs were selected to have some clear measurement targets to work toward. |
| Data basis | Data needs were identified, and a number of tools were developed to provide the necessary data. |
| Demand forecast | The requirements for the sales forecast were specified, and participants agreed on a cycle. |
| Production and capacity planning | The requirements for production and capacity planning were specified, and participants agreed on a cycle. |

Kilde: SPORT 24 BUSINESS.

”The S&OP process gives us a forum where we can share knowledge and deal with the commercial and production matters that have a longer horizon than the ‘firefighting’ period. We have now built a little S&OP foundation to build on further, and we are now entering a new phase where quality must be raised further. Knowing each other's differences and functions is a good starting point for this.

Alex Thygesen Hansen, S&OP Manager, SGM.

In connection with the start of the S&OP project, the key elements that formed the basis for the S&OP process were clarified. The foundation for the overall project plan was established, as shown in Table 2.

After each S&OP cycle, participants have shared information about decisions and next actions. Some employees have returned with comments or questions. The process produced good results, and from month to month, participants perceived it becoming better and better. The sales forecast was the pivotal point in the process, providing the organization a better foundation from which to make dispositions to meet customer needs. Material was often distributed one day prior to or at the decision meetings. At the meetings, the same updated 10 to 12 slides were discussed. About half of the slides concerned proposals to the sales forecast. Subsequent slides involved operations members’ suggestions for making dispositions. Finally, meeting participants decided actions for the coming period.

3.1.2 The behavioral part–“soft wiring”

The top managers and the board began to see the positive effects of the S&OP process. A better alignment of SGM’s budgets and ongoing sales forecasts began to emerge.

Key Behavioral Indicators

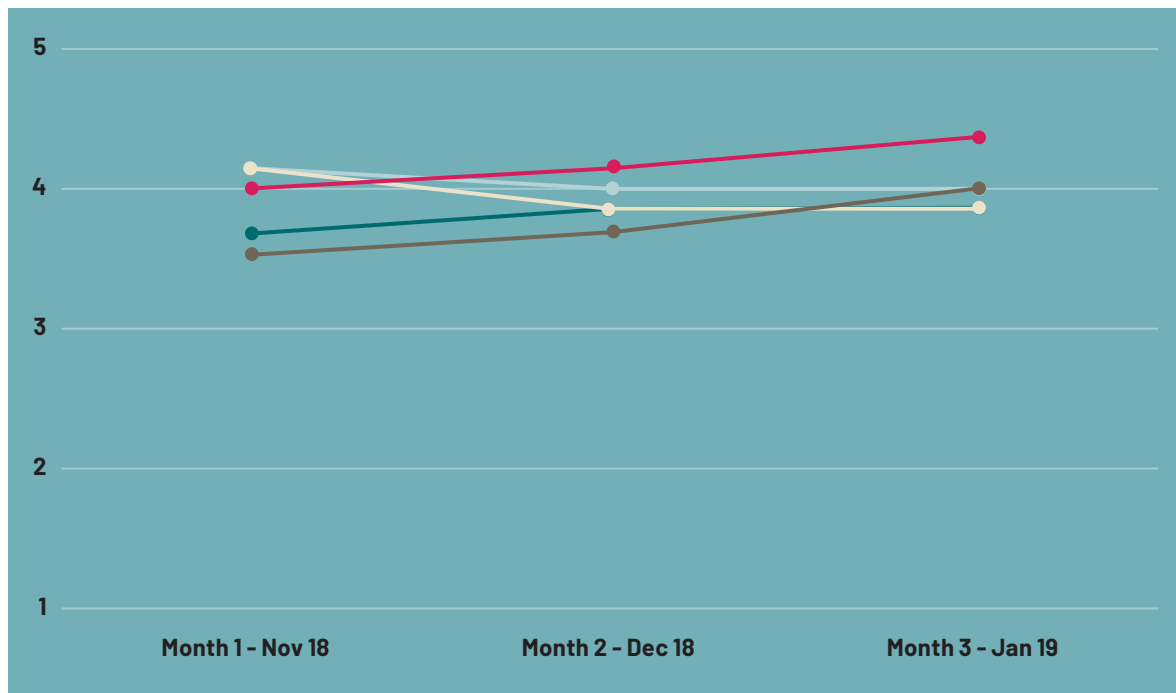
Participants in the S&OP process decided to work primarily with one Key Behavioral Indicator (KBI): “Listen. Let the people speak out, and wait 3 seconds...”.

This KBI was chosen primarily to recognize the diverse roles in the process. Salespeople tend to focus on sales, and production staff tend to focus on production. Reaching a common understanding of each other’s wishes, interests, and ways of perceiving the need for S&OP was an important part of an effective process. The KBI did not prevent people from speaking for their own cases, but the KBI reminded them to listen better.

In addition, participants found it important to address continuously the purpose of the S&OP process. Therefore, all materials and documents have included a front page showing what SGM wanted to achieve by working with S&OP.



Figure 2: Perceived relevance of Key Behavioral Indicators



Through an assessment of personal profiles, SGM employees gained greater insight into the differences among employees in the different business functions. This insight made it easier to obtain a good and constructive dialogue for the benefit of the entire organization. In addition, employees were more apt to understand why colleagues reacted in certain situations as they did. SGM leaders planned more work in the personality area while they implemented the basic S&OP process. The most important aspects were to understand that people were different, being different was acceptable, and people needed to listen to each other. In addition, employees should try to familiarize themselves with others' roles and tasks in promoting the S&OP process.

Figure 2 indicates that the S&OP process and the associated meetings formed a strong frame for constructive dialogue—the need for coordination and cooperation was at the top of the agenda. At the same time, the graphs show an open and constructive dialogue about the S&OP process and its adjustments on a continuous basis.

- 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)

“Our most important KBI is to respect each other, listen and let others to finish their speaking—and then just have three seconds of silence before answering.

Ulrik Jakobsen, COO, SGM.



4. Effect and learning

4.1 OBJECTIVES, ROLES, AND RESPONSIBILITIES

The S&OP project provided SGM greater insight into the organization and its interdependences, which was a clear advantage for the entire organization. Ensuring coherence and coordination was at the top of agenda throughout the organization, even if members in sales sometimes could not see all the benefits.

Figure 3 shows that the S&OP team perceived that the objectives were clear and that there was clarity about roles and responsibilities.

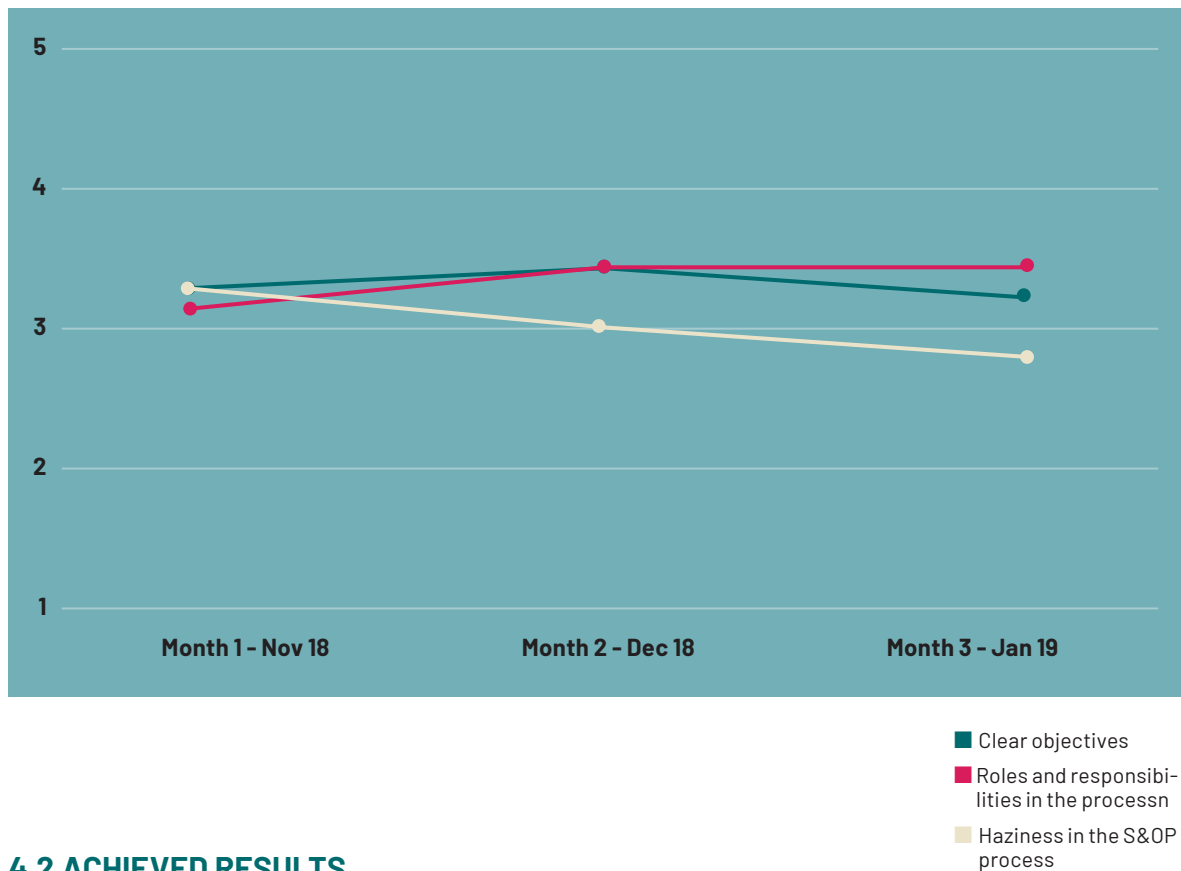
Moreover, Figure 4 shows a perceived readiness; average scores were between 3 and 4 for the four areas: top management, sales, operations, and S&OP Manager. However, there was a decrease from the second to the third benchmark. Managers should be aware of this decline and be prepared to respond to questions.



S&OP has provided a dialogue between sales and operations. We still have some miles to go, but dialogue is still better than no dialogue, and now we sit together around the same table.

Ulrik Jakobsen, COO, SGM.

Figure 3: Development in the clarity and perception of roles and responsibilities of the objectives



4.2 ACHIEVED RESULTS

SGM achieved a number of advantages from the S&OP project:

- The employees at SGM have become better at understanding each other's tasks and challenges. The dialogue has thus become better.
- The employees at SGM have become better at coordinating their tasks. The company has thus obtained more valid forecasts, which has benefited daily operations. The entire S&OP process has helped improve the ongoing planning, including fostering better dialogue about handling new products.
- Employees have an increased recognition of a need to introduce delivery times on the products.
- Employees have better understanding that the entire organization "sails in the same boat".
- There has been an increased adoption of systematic processes.
- Decisions have become more fact-driven.

”The question is how far we should go—which stage we have to achieve with S&OP maturity. However, we still have to be extremely dynamic and flexible and be able to handle fluctuations. This is our DNA.

Alex Thygesen Hansen, S&OP Manager, SGM.

4.3 LEARNING

SGM remains in continuous development, wherein the company gradually improves coherence and dialogue. The company’s delivery capability to customers has improved and time for replanning and handling rush orders has been reduced. A future activity involves setting scenarios to connect marketing activities more effectively with the S&OP process. This plan will strengthen forecast ability. Another area for further improvement is to break down the market sales forecasts more accurately, which will help strengthen dialogue and learning about the forecasts. Service is one of SGM’s strengths. As the company becomes better at managing its delivery performance, service will contribute positively to grow revenue.

Overall, SGM has approached the S&OP project systematically. Company leaders have made further progress in their continued effort to involve more stakeholders in the process. It has been important to get the data and quality in place quickly. The motto “garbage in, garbage out” has been relevant. Most important, however, was gaining top managers’ commitment from the start, from project inception to operation, so the implementation was supported all the way.

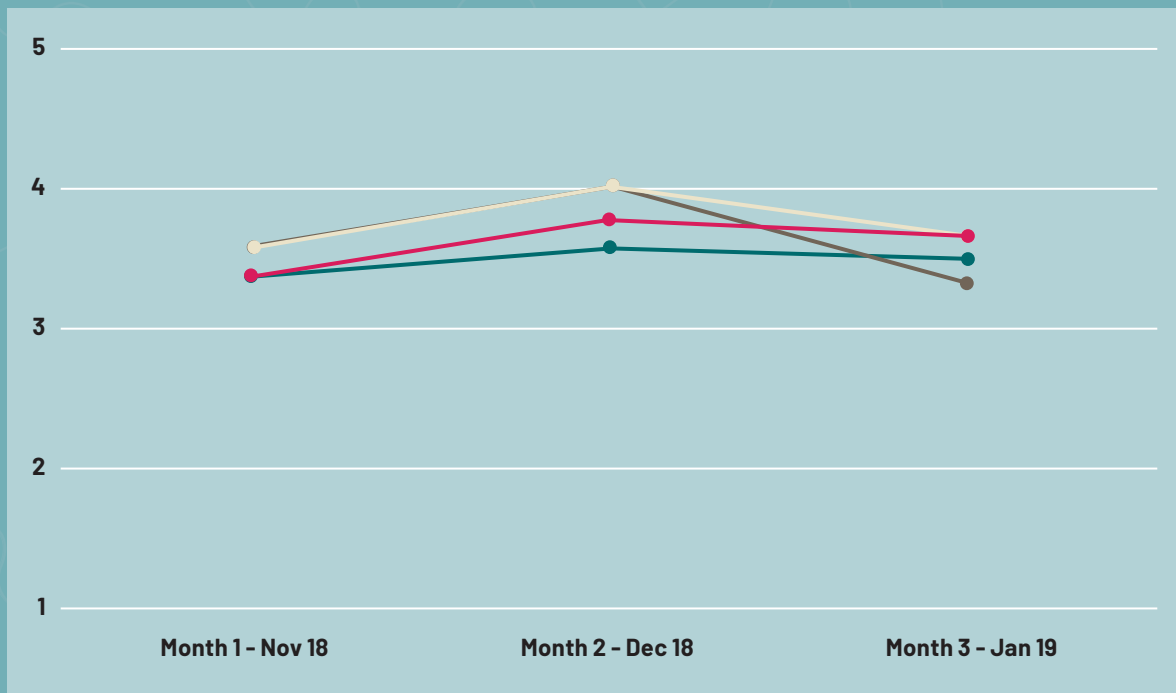
Eventually, designing a proposed “lite” version of the S&OP process, wherein the project begins at a smaller scale, could make an S&OP project easier to adopt. However, it seems to be more important that a person be appointed who can lift and take on the task within the organization. This person was a major reason behind SGM’s gains.

”It has been a great strength for us that we had one on board who have had knowledge of and experience with S&OP. It has given a good start.

Ulrik Jakobsen, COO, SGM.



Figure 4: 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