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Focusing on Process: Leveraging Inventory Governance Practices to Improve Supply Chain  
Functionality

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## ABSTRACT

Inventory governance is an area of supply chain where companies follow “best practices”, but without a definition of what these general guidelines are, some businesses open themselves up to unnecessary risk when they do not focus on this topic. Specifically, a weak structure in this area can lead to miscommunications, knowledge gaps, and lost sales, among other detrimental side effects. Another issue arises with “perfect” guidelines looking different for every company, so one company’s successes with inventory governance cannot be directly transferred to another. This thesis examines how a top healthcare and pharmaceutical supplier, Company A, manages their inventory processes as well as recommends how they can improve this area to benefit their supply chain overall. Fifteen employees from Company A were interviewed with a standard set of questions crafted to gain insight into the company’s current inventory governance procedures. The tribal data collected was analyzed to provide employee-driven process recommendations. The commonalities found were compared to limited academic research in this space; deliverables were compiled for Company A based on these results, detailing ways they can advance their business with a few changes. Final suggestions on how Company A can improve their inventory governance center around strengthened communication, increased visibility, and education. The main takeaway from this case study and thesis is finding ways to improve inventory governance specifically for Company A, which will improve their overall supply chain operations.

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## **Chapter 1**

### **Introduction**

#### **Inventory Governance**

A supply chain can only be as strong as the processes behind it. Numerous areas in the field can be analyzed when looking for improvement, but none are as pivotal as inventory.

“Inventory represents one of the most important and difficult assets to be managed at firm level as well as at macro economy level...inventories have a triple role in modern organizations: as contributors to value creation, as means of flexibility and means of control” (Elsayed and Wahba, 2013, p. 207). Handling inventory in any corporation is a challenge, and there is not a single solution for the process; “...good governance may exist in theory or on paper, formulaic approaches can be perilous” (Cunningham, 2022, p. 35). However, supply chain leaders can continuously improve their inventory processes to ensure that all stakeholders are aligned.

This thesis centers around creating an inventory governance solution for a major healthcare and pharmaceutical supplier. Supply chain professionals from many different divisions will be interviewed to gather tribal data on the current inventory process. Weak points in the company’s inventory process will be identified and solutions will be presented. Research is lacking in this space; the goal of this thesis is to identify major issues and implement changes to improve inventory, which will improve the overall supply chain of a company. A single solution cannot be transferred to all corporations, but general themes are applicable across all businesses.

This thesis will follow the subsequent format: background, methodology, analysis, and conclusions and topics for further discussion. The background chapter will define the concepts of governance, inventory management, key performance indicators, and best practices. The methodology section will detail the process taken when conducting interviews and compiling the data. It will also describe the areas where the major healthcare and pharmaceutical supplier is falling short in their inventory management and governance. The analysis chapter will depict a possible solution for the firm and the key findings of the research. The conclusions chapter will speak to the significance of this research and how other companies can harness the findings of this thesis to their supply chain's advantage. Finally, the thesis will conclude with topics for further discussion, stressing where this research could be expanded upon in the future.

## **Chapter 2**

### **Background**

#### **Governance**

Governance exists at the foundation of every business, with no two strategies being the same. Factors affecting governance structures include, but are not limited to, a company's market capitalization, industry characteristics, and prior practices (Reynold, 1999). Larger companies, such as those in the Standard and Poor's 500, are more likely to have their governance strategies laid out in detail and set trends that mid-cap and small-cap companies then follow; greater pressures from shareholders direct and demand a business's governance at this level (Reynolds, 1999). Without governance standards, there would be a lack of oversight and accountability in businesses.

Structures of corporate governance mirror other leadership groups within a company. Commonly, a board that is independent of management and/or a committee is formed, with the size averaging around eight to twelve members and/or three to four members respectively, with these numbers being proportionally representative of a company's market capitalization (Reynolds, 1999). The group's mission is to form a process that follows their business's goals while staying in line with legal operating standards. These law benchmarks are reworked by governments after business catastrophes, such as Enron's scandal, and they stay broad to apply to all companies (Cunningham, 2022). Paul Gompers, a finance professor, summarizes that "...good governance increases 'democratic' shareholder rights, like one-share/one-vote, while bad governance encompasses things that increase 'despotic' managerial power, like a CEO also chairing the board" (Cunningham, 2022, p. 37).



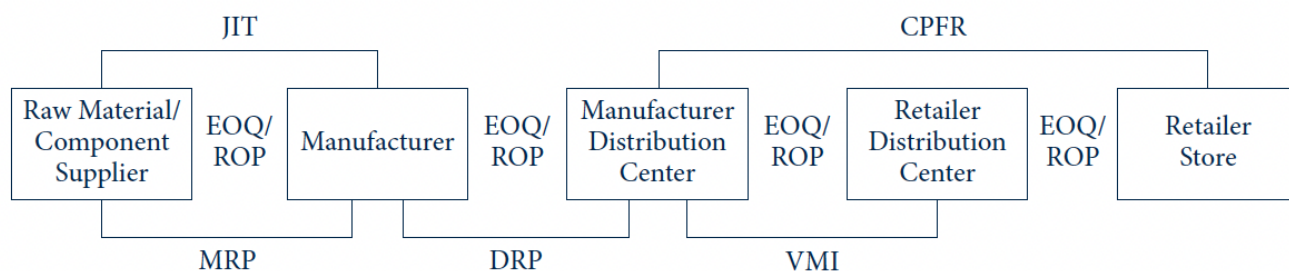
Numerous decisions must be made when choosing what ages, races, genders, and experience levels serve on a governance board or committee. There is a legal skeleton in every country's government that helps guide these choices, but it is up to each company to make the best structure for themselves. Although specific research on governance and its direct impact on different business areas is limited, one empirical research study found that "...institutional ownership affects inventory management positively when managerial ownership is high, CEO duality is in place, or board size is large" (Elsayed & Wahba, 2013, p. 215). This data shows that while risky, governance should not completely limit where executives can invest in their company, as there may be positive effects on important aspects of the company, such as inventory management. Governance measures are closely related to Enterprise Risk Management (ERM); eighty-six percent of companies with fully executed ERM say that their decisions are well-informed, over fifty-eight percent of other companies, and eighty-three percent of implemented ERM techniques report a greater management consensus on risk factors compared to thirty-six percent of other companies ("ERM is Busting", 2005). The key—as with many decisions in supply chain—is finding a balance between the different tradeoffs that come with corporate governance.

On a smaller scale, each area of a business will have subsets of governance. This thesis will focus on governance surrounding inventory; themes from this general governance discussion apply to the ensuing, more specific inventory governance discussion.

## Inventory Management

A strong inventory management system is crucial to a business's supply chain success. To be classified as 'successful', inventory is minimized at all manufacturing stages while a cost-efficient production volume is maintained (Shim et al., 2012, p. 395). Numerous factors influence which technique is best used at each part of the supply chain—depicted in Figure 1.

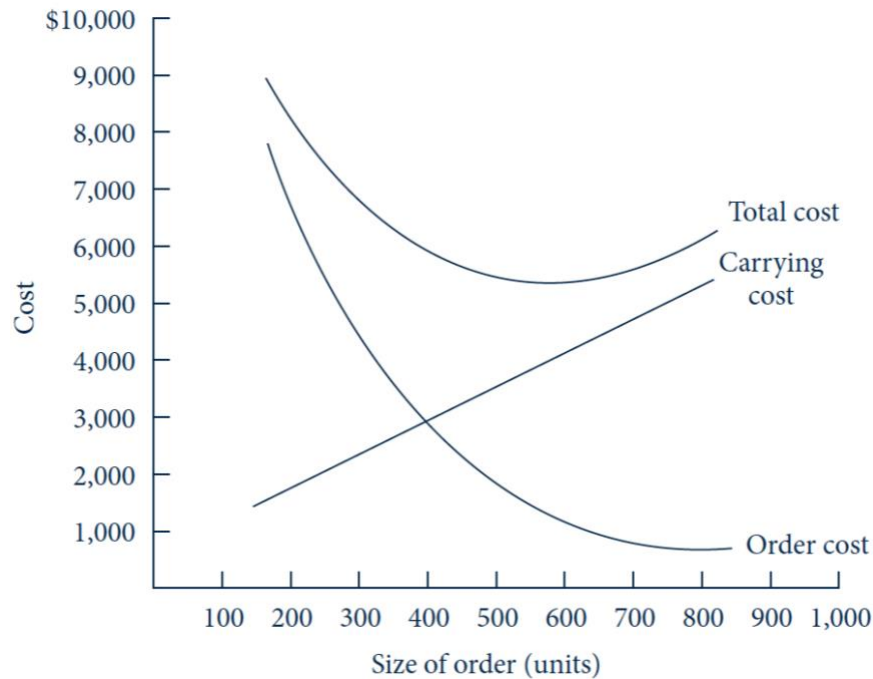
**Figure 1: Inventory Management Techniques in the Logistics Network**



Source: Robert A. Novack, Ph. D. Used with permission.

As pictured above, the main inventory management approaches include Economic Order Quantity (EOQ), Just-In-Time (JIT), Materials Requirements Planning (MRP), Distribution Requirements Planning (DRP), and Vendor-Managed Inventory (VMI). Regardless of which of the five approaches are being considered, there are costs associated with inventory. Inventory carrying cost, which is made up of capital, storage space, inventory service, and inventory risk costs, and inventory ordering cost; these two costs respond differently to changes in the quantity of total orders and size of each order (Langley et al., 2021, p. 304). This relationship is highlighted in Figure 2.

**Figure 2: Inventory Carrying and Order Costs**



Source: C. John Langley Jr., Ph.D. Used with permission.

Other important costs that cannot be overlooked are stockout costs, cost of lost sales, and in-transit inventory carrying costs (Langley et al., 2021, pp. 306-311). As supply chain professionals invest more into inventory, the customer service level increases at a decreasing rate (Langley et al., 2021, p. 312). These relationships are critical to the inventory management process, and the tradeoffs of inventory costs drive supply chain decisions.

With these factors in mind, each of the inventory management approaches has a slightly different set of characteristics it prioritizes. The EOQ model is “the optimum amount of goods to order each time so that total inventory costs are minimized” (Shim et al., 2012, p. 402). Several assumptions are made with this fixed order quantity EOQ model, as declared by Langley et al.:

1. a continuous, constant, and known rate of demand
2. a constant and known replenishment or lead time
3. all demand is satisfied

4. a constant price or cost that is independent of the order quantity (i.e., no quantity discounts)
5. no inventory in transit
6. one item of inventory or no interaction between items
7. infinite planning horizon
8. unlimited capital (Langley et al., 2021, p. 316)

A variation of this model exists where there is a fixed order interval; inventory is ordered at the same time for each interval. In this scenario, if demand and lead time are known and constant, the company using this EOQ variation will order the same amount of product during each interval; however, if demand and lead time are not known, the amount of product ordered will vary during each interval (Langley et al., 2021, p. 331). Irregular quantities and intervals can also be introduced into the basic forms of the EOQ model, and the tradeoffs that come with each must be weighed to decide what combination will be used when dealing with EOQ.

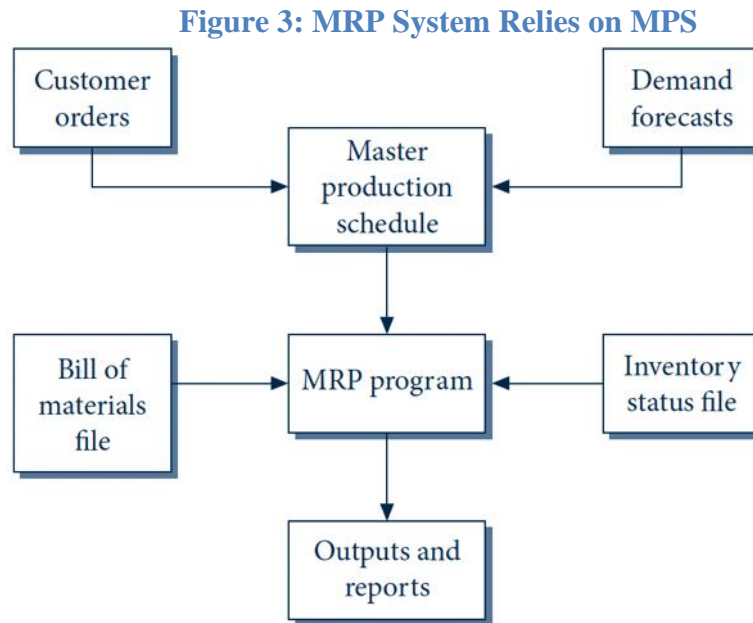
A JIT inventory model is one looking to limit inventories kept on hand. The goals of JIT are to have no safety stock on hand, manage a consistent lead time, receive small inventory shipments often, and have no defects in inventories; the shipments in this system should arrive right when the manufacturer needs them, utilizing a Kanban/two-bin like system (Langley et al., 2021, pp. 332-334). JIT holds little to no inventory and production volume can vary quickly based on demand.

MRP systems take a company's master production schedule (MPS) through its software and reworks it to:

1. Ensure the availability of materials, components, and products for planned production and for customer delivery;

2. Maintain the lowest possible inventory levels that support service objectives; and
3. Plan manufacturing activities, delivery schedules, and purchasing activities (Langley et al., 2021, p. 336).

A well-created MPS is vital to the MRP system running properly, which can be seen in Figure 3:



Source: John J. Coyle, DBA. Used with permission.

Because of this highly connected approach, MRP systems can be complicated to manage. This negative is offset by MRP's ability to find problems in the inventory process and identify them before they materialize.

A DRP system is an outbound focused system. Because of this, DRP “is to more accurately forecast demand and to explode that information back for use in developing production schedules...an organization can minimize inbound inventory by using MRP in conjunction with production schedules” (Langley et al., 2021, p. 341). Used together, these two systems can ensure that inventory is managed properly from raw materials all the way to when it is manufactured finished goods.

The last inventory management system this thesis will discuss is VMI. In this system, a company manages their inventories that are held in their customer distribution centers; VMI allows for a present inventory amount to be reported at the customer facilities, with the downside of a company pushing inventory holding costs to their customer (Langley et al., 2021, pp. 343-344).

Referencing back to Figure 1, a company can utilize multiple inventory management systems at once. It is up to businesses to decide what systems they invest in and utilize to aid in their company's inventory management.

### **Key Performance Indicators**

Key performance indicators (KPIs) are a tool utilized to measure a supply chain's performance. They can be extremely valuable, as they provide a quantifiable look at how a business is performing. Anand and Grover (2015) found insights where "LaLonde (2000) argued that the SCM community needed to address an important disconnect between supply chain decisions and financial investment outcomes and Ellram and Liu (2002) also stressed on quantifying the broader impact on SCM" (p. 152). The academic community in the supply chain industry values the importance of these KPIs, but which KPIs should a company focus on?

Selecting the right KPIs for a company is never easy, with Bongsug (2009) emphasizing that "...developing a performance measurement tool set...involves a rather complicated process and can be very challenging for ordinary businesses" (p. 422). With so many areas available to measure, a company needs a starting point to model their chosen KPIs from. One structure for this could be the Supply Chain Operations-Reference (SCOR) model, which breaks down the

supply chain into five areas: plan, source, make, deliver, and return (Bongsug, 2009). With this model in mind, businesses should start with a small handful of KPIs. Too much data can lead to information overload and can overshadow the metrics that are worth calculating.

For example, if a company was looking to improve their inventory forecasting, they would focus in on KPIs that aid in the planning phase of the SCOR model. If they wanted to see what their manufacturing fill rate looked like, they would focus on production metrics.

Whichever KPIs are decided upon should be useful for not only the business, but also its workers as well. KPIs can be leveraged month after month or year after year to see how a company is performing against itself over time. Without these benchmark numbers, it is very difficult to tell if a business is doing as well as it could be and what areas the business can improve in. This point is emphasized by Bongsug's (2009) quote "monitoring KPIs reveals the gap between plan and execution and helps to identify and correct potential problems and issues" (p. 427). Selected KPIs should be metrics that tell a company's story in a succinct but accurate way.

### **Best Practices**

When looking at a company from a high-level, their strategy and configuration will most likely follow an established set of industry 'best practices'. These guidelines can be helpful for a business to set up their framework on how to run but should not be the only influence over how companies decide what direction to take. Regardless of what the best practices are, the procedure needs to be clearly defined and communicated to employees. Without having a set plan, a business will be stuck in a state of disfunction—running sub-optimally. Well-documented best practices can help alleviate some of these pressures and help a business run smoother. These best

practices should be specifically tailored to a company and should be able to evolve over time. The development of these best practices should include all levels of employment, from entry-level positions to the corporate leaders. Best practices are a roadmap for success; time and thought should be invested in them ensuring that companies do not get lost. Implementing a solid plan stems from strong leadership, as “the best directors focus on what’s best for their companies, not on what generalist consensus ordains as best practices” (Cunningham, 2022, p. 37). Every company will have their own best practices for governance, inventory management, key performance metrics, and a slew of other topics. Recommendations can be given on all of these fronts, but they are on an individual level. There is no one ‘best’ answer in any of these categories for all businesses.



## **Chapter 3**

### **Methodology**

#### **Company Background**

For confidentiality reasons, the company that was the focus of this research will remain anonymous. They will be referred to as Company A for the remainder of this thesis. Company A is a Fortune 500 member as well as a major healthcare and pharmaceutical supplier. They are an industry leader that is headquartered in the United States and runs a global supply chain. Company A currently uses an MRP system to manage their inventory.

#### **Project Scope**

Company A has placed inventory management and the governance that surrounds it at the top of their innovation priorities. Miscommunications between supply chain leaders and other business areas have prompted Company A to seek solutions. The objective of this project is to collect tribal data from supply chain leaders through a structured interview process and recommend a practice that reduces the systemic risk of losing this specialized knowledge. The project aims to capture the potential impacts that new changes to Company A's inventory plans may have, specifically where they can save money on excess inventory builds. Additionally, Company A is seeking recommendations of different metrics and KPIs that could be useful in achieving the aforementioned project goals. Overall, Company A wishes to maximize the user benefit of their inventory management system to become more prescriptive—for the benefit of all their employees.

The following is an individual breakdown of the diverse titles held by the fifteen interviewees who were asked questions regarding this project's scope:

- one Global Supply Planning and Channel Manager
- one Global Demand Planning Manager
- two Regional Manufacturing Managers
- two Regional Procurement Operations Managers
- one Global Sourcing Supply Manager
- one Business Supply Manager
- one Supply Network Planner
- one Supply Chain Network Planner
- one Business Operations Strategist
- one Business Director
- one Business Manager
- one Global Supply Chain Senior Manager
- one Global Supply Chain Operations Senior Manager

Interviews with these fifteen Company A employees lasted about thirty minutes each.

The high variation in interviewees' jobs aided in the interviewer's ability to gain as much tribal data as possible across Company A's supply chain professionals. All interviewees were asked a standard set of five questions, which are listed below.

1. Where do people get their current info about inventory processes?
2. What are the downfalls of the current system?
3. Do you feel like you are informed of the whole process, from end-to-end? Why?
4. Do you think a swim lane diagram would be more useful than current RACIs?

5. Are you aware of any inventory health metrics?

These questions were formulated with the input received from Company A's Inventory Optimization Leader. An initial pilot interview was run to ensure the questions provided the responses that Company A was looking for on this project. Answers from these questions will be valuable for succeeding in the previously stated short-term goals of this research project as well as assisting Company A in renovating their inventory process map in the long-term. Question one exists to gauge where employees' knowledge is on the current procedures regarding inventory and if they know where to go to have their questions answered. The second question allows those being interviewed to discuss any flaws they see with their day-to-day work that involves inventory. The placement of this question in the research project is critical; it allows employees to be honest about a current process without speaking directly to a leader or co-worker. With the interviewer outside of Company A's structure, answers should be unbiased with the impression that all feedback can help improve their job. Question three is initially a yes or no inquiry but expands to find what is currently working or not working, making sure that Company A's employees are knowledgeable of the current inventory process. The fourth question aims to see how often employees utilize the available charts to confirm who is responsible, accountable, consulted, or informed (RACIs) for what tasks. Also, it proposes a new style of information delivery in a swim lane diagram, to judge if Company A's employees would be open to changes that may improve how information is presented. Question five investigates what positions utilize the current—but limited—KPIs available at Company A. Additionally, it leads into an open discussion to gather opinions on revamping the company's KPIs regarding inventory.

Any additional questions asked during interviews will be specific to that conversation. These answers will be recorded in the interviewer's notes and used to support findings if they are found to be relevant to the goals of the research. Detailed notes from each of the fifteen interviews will be kept and compiled for analysis. The tribal data collected will act as a baseline to construct a new inventory governance framework for Company A in the future, which stretches beyond the goals of this project. Thematic commonalities will then be bucketized and used to compile recommendations and advise Company A of a path forward for their inventory process improvements.

## **Chapter 4**

### **Analysis**

### **Results**

Once the tribal data was collected and reviewed, three main themes for how Company A's inventory management process could improve emerged. Most importantly, employees from all levels felt that communication between their teams, as well as outside of the supply chain, specifically to finance, were weak. Company A employees continually mentioned the lack of visibility throughout the supply chain as a downfall to the way they operate. The largest commonality of lower level and newer employees alike was the overall knowledge of Company A's supply chain from end-to-end. The following ideas from interviewees highlight these issues.

A powerful phrase that came from the Global Supply Planning and Channel Manager was that Company A does not have a "single version of the truth" regarding their inventory data. There are numerous methods to pull this information from different software, which has led to confusion and disconnect among employees. This idea was echoed in the Supply Chain Network Planner's allusion to Frankenstein when describing how the software systems work together. The Supply Network Planner at Company A believes they need an updated, end-to-end SAP system to replace the disjointed, archaic system. This same employee emphasized how the roles and responsibilities of those in the supply chain need to be better defined. This was a reoccurring issue that employees mentioned: according to the Business Manager for a specific division of Company A, the business is trying to be more agile, but the changes they are aiming to achieve are not communicated appropriately. When looking at what resources are available for employees to reference in their work, the Global Supply Chain Operations Senior Manager

stressed that whatever route is taken on this project with recommendation materials needs to facilitate meaningful discussions. A phrase this senior employee referenced a few times when talking about resources was that “there are many ways to skin a cat”. This leader knew there was a multitude of ways to rework Company A’s internal educational resources; they used this saying to drive home that any changes do not need to be drastic—they need be effective. When discussing the MRP system that Company A uses, the Regional Manufacturing Manager mentioned how this forecast is based in the level of materials available and the outputs for one SKU, but then employees are required to forecast to sell for an entire product line. A Business Director reiterated issues with the company’s MRP projections, as materials that are scrapped end up in stock calculations when they should not be included. Company A’s MRP system seems to be running sub-optimally based on this information. The comments summarized here are a fraction of the information collected but underline the main themes that Company A is struggling with. The commonalities between interviewees lead to the subsequent deliverables and recommendations.

### **Definitions**

To address the issue of education gaps among employees, an easy to follow, definitions guide was prepared for Company A employees with company specific examples. The following terms were defined as a baseline. Company A employees are encouraged to add to this list as they see fit, creating a living document for how their company defines and utilizes these terms.

- Cycle Stock
- Safety Stock

- Make to Order
- Make to Stock
- End-to-end Supply Chain
- Service Level
- Fill Rate
- Lead Time
  - Pipeline Inventory
  - Production Lead Time
  - Material Lead Time
  - Customer Lead Time
  - Cumulative Lead Time

Having this knowledge base will be critical for employee alignment, as well as retaining tribal data. This foundation is recommended to be built out in Microsoft Access or a program that is similar to allow all employees at Company A to edit and reference the information at their own convenience.

### **KPIs**

An overwhelming response from interviewees of Company A regarded their lack of supply chain inventory KPIs. A common request was needing a KPI to see what level of turns the company operates at. Additionally, different KPIs would allow Company A to see how they are performing on a scale other than sales. Company A has experimented with an inventory health metric in the past, but at some point, it stopped being reported. Currently, if employees

want to see the value of a KPI, they must pull the data individually and run the calculation themselves. Some plants run their own inventory health metric calculations and are successful with them, but they are specific to that location. Company A needs to implement a standardized set of metrics that allow employees to see the full picture, as well as a drill down feature to see plant specific data.

Additionally, it is recommended that the business makes sure the data used is coming from a unified source. The employee in the Inventory Optimization Leader role mentioned that Company A will be working to consolidate the multiple software programs used soon. Currently, finance employees at Company A have access to different software programs than the supply chain team, causing confusion. Multiple programs exacerbate the “lack of a single truth” issues that exist in Company A; merging them into one resource will not only solve this problem, but also it will allow the data pulled for KPIs to be from a single source. With the employee recommendations in mind, a short list of potential KPIs was compiled for Company A to consider implementing. Suggested KPIs are as follows:

- Inventory Turnover Rate = cost of goods sold / average inventory
- Perfect Order Rate =  $[(\# \text{ orders delivered on time} / \# \text{ orders}) \times (\# \text{ orders complete} / \# \text{ orders}) \times (\# \text{ orders damage free} / \# \text{ orders}) \times (\# \text{ orders with accurate documentation} / \# \text{ orders})] \times 100$
- Fill Rate =  $[(\# \text{ total items} - \# \text{ shipped items}) / \# \text{ total items}] \times 100$
- Inventory Carrying Costs =  $[(\text{inventory service costs} + \text{inventory risk costs} + \text{capital cost} + \text{storage cost}) / \text{total inventory value}] \times 100$
- Order Cycle Time =  $(\text{time customer received order} - \text{time customer placed order}) / \# \text{ total shipped orders}$



- Service Level = (# orders delivered / # orders received) x 100
- Lead Time = order process time + production lead time + delivery lead time

The KPIs that Company A eventually ends up selecting will be up to them, but this list of seven potential ones was composed to suit the needs of the employees who will be using them. The metrics are inventory based and attempt to convey how the company is performing without overwhelming the employee interpreting them.

### **Education**

Along with the supply chain terminology definitions and knowledge bank previously mentioned, there are a few other recommendations to improve the education of Company A employees. Currently, there are employees who have never conducted plant tours to see their products being manufactured. Company A should encourage these tours to strengthen communication between those buying inventories and those who are working on the floor, and to see capabilities of what the business can produce. Another recommendation is to establish a mentoring program between seasoned members of the inventory management system and newcomers. This, along with the documentation of information, can help minimize the loss of tribal data once long-serving employees eventually retire from their roles. With a few proactive shifts in inventory management knowledge, Company A can prevent major losses of tribal data in the future.

## **Deliverables**

All previously mentioned recommendations were delivered to Company A through scheduled meetings, Emails, and Microsoft Word Documents. Compiled interview notes were also sent to Company A for their reference. In addition, a Microsoft Form was created. This questionnaire exists to serve as a guide when employees are requesting increases in the procurement of certain inventories. The responses are easily compiled in Microsoft Excel, and the right approver can go into this file and approve or deny an inventory request when it comes to them (see Appendix A). This form will assist in creating a clear inventory request process for Company A, as it will house all requests made by employees.

All deliverables were solicited by the Inventory Optimization Leader and the Global Supply Chain Operations Senior Manager. They satisfied the goals of the defined project scope and provide a roadmap for Company A to improve their inventory management process and the governance that surrounds it—as they see fit.

## **Next Steps**

It is up to Company A to implement and execute the recommendations provided by this thesis. Additionally, these suggestions are specific to the needs of Company A and should not be applied directly to other companies. This project served as a jumpstart for the Inventory Optimization Leader to enact change in the organization. Succeeding these recommendations, Company A should question if an MRP inventory management system on its own is the most beneficial for their processes. Tribal data collected lends itself to say that, at the very least, combining the MRP system with a DRP system may enhance the inventory processes at

Company A. Continued innovation and modernization at Company A will be required to keep processes up to date.

## **Chapter 5**

### **Conclusions**

Tackling a project scope that is as open ended as this thesis will always be a challenge. To improve their inventory governance and knowledge resources, Company A will have to enact change while they remain operational—which is no easy task. Proper tribal data management and increased supply chain visibility can only have positive results, and companies should take these areas seriously as workforces continue to turn over. When thinking about best practices in this space, there is no singular, correct answer. Inventory management and the governance surrounding it is hyper-specific to every company; a small business will have completely different “best practices” than a global corporation. With limited research and details in this space for companies to reference, they are left to experiment—finding out what works for them. Like this thesis did with Company A, businesses should listen to where employees experience gaps in the process and attack those first. Even if a change only saves an employee five minutes out of their day, that is still an improvement. Companies must be willing to enact change continuously, to ensure they are operating in a way that is most beneficial to their businesses.

### **Topics for Further Research**

This case study could be replicated on companies outside of the healthcare and pharmaceutical industries, with the results being compared. With little research in this space currently, it is hard to see if there are trends in inventory governance practices across companies in the same industry. Additionally, it would be interesting to see what government regulations,

which guide a company's governance decisions, are lobbied for or against. Looking at how these government regulations shape how a company operates may be worthwhile.

A singular business, like Company A, could be monitored before and after implementing a set of KPIs or an interactive knowledge repository, and the results of this data could be analyzed. On this topic of inventory governance best practices, this thesis covered a fraction of the different routes that could be taken. The opportunities in this area are vast; this thesis can be greatly expanded upon.

## Appendix A


## Inventory Request Form

## Company A - New Inventory Requests

This survey will take approximately 10-15 minutes to complete. It's purpose is to collect information and inform the right approvers of new inventory requests for Company A.




\* Required


1. Date of Request \* 

Please input date (M/d/yyyy)




2. Name \* 

Enter your answer

3. Email address \* 


Enter your answer

4. Project/Area Request is for \* 


Enter your answer

5. Goal of Request? \* 


Enter your answer

6. Type of Inventory/Part Number/Quantity Requested? \* 

Enter your answer

7. Total Cost of Quantity Requested? \* 


Enter your answer

8. Request is Classified as \* 


Finished Good

Raw Material


Other

9. Customers Related to this Inventory? (Quantity) \* 

Enter your answer

10. Name/s of Main Customer/s? \* 

Enter your answer

11. Growth Projected in this Area? (Short Term) \* 

Enter your answer

12. Growth Projected in this Area? (Long Term) \*

Enter your answer

13. Projected Lead Time from Supplier? \*

Enter your answer

14. Customer Requested Lead Time for this Item? \*

Enter your answer

15. Where is this Item Coming from? (Location) \*

Enter your answer

16. Current Gross Margin? \*

Enter your answer

17. Total Estimated Inventory Impact? (in Dollars) \*

Enter your answer

18. Any Other Comments to Add about this Inventory Request?

Enter your answer



**BIBLIOGRAPHY**

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## ACADEMIC VITA

# Kyra Cunningham

kyracunninghaam@gmail.com

### EDUCATION

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#### The Pennsylvania State University

Schreyer Honors College

Intended Bachelor of Science in Supply Chain and Information Systems

Intended Minor in the Legal Environment of Business

University Park, Pennsylvania

Anticipated Graduation: May 2023

Distinction: Summa Cum Laude

Dean's List: 7/7 Semesters

### WORK EXPERIENCE

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#### Lockheed Martin

Commercial Civil Space Subcontracts Intern

- Initiated and led negotiations of 43 Non-Disclosure Agreements with potential suppliers on space programs
- Generated CCS blanket NDA template to broaden PI coverage and to increase visibility within company
- Managed 78 supplier invoices and assisted in accelerating payments amounting to over \$1.49M
- Gained SAP experience by modifying three and closing out eight contracts with suppliers in Procure2Pay

Littleton, Colorado/Remote

June 2022-Present

#### United States Steel Corporation

Procurement Intern

- Optimized industrial cleaning scope of work and reduced annual spend by \$180,000 for the Gary South Blast Furnace day-to-day operations, with additional call out jobs eclipsing \$200,000 in total yearly savings
- Executed RFP package and solicited bids from six potential suppliers for an in-plant trucking commodity
- Cultivated seven key supply chain related disciplines to include in the 2021 sustainability report
- Analyzed gate time data and conducted a total cost audit for a top spend supplier in the Midwest region

Pittsburgh, Pennsylvania

June 2021-August 2021

### INVOLVEMENT & LEADERSHIP

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#### Sigma Chi Mu Tau – Supply Chain National Honor Society

Selected Club Member

Corning – Research Project Mentor

- Designated as one of six inaugural guides for group of four underclassmen completing supply chain research
- Aligned with cohort weekly to discuss progress and provide support on semester-long project with CSCR

University Park, Pennsylvania

August 2021-Present

August 2022-December 2022

#### Onward State

Photographer

- Document the student experience for the most followed, independent, student-run news source at Penn State
- Capture pictures on and around campus to be featured in articles and/or showcased on social media platforms
- Elected by peers as a member of the football beat to cover four games; shot 50+ credentialed Penn State events

University Park, Pennsylvania

September 2020-Present

#### Delta Sigma Pi – Professional Fraternity

Alpha Gamma Chapter - Active Member

- Completed a seven-week professional development program through interviews, meetings, and studies
- Coordinated and documented 90+ interviews in weekly deliverables, evaluated by DSP Executive Committee
- Analyzed a business case study to propose innovative and ethical solutions to organizational challenges

University Park, Pennsylvania

February 2020-Present

#### Penn State Center for Supply Chain Research (CSCR)

Penn State Procurement – Lead Project Consultant

- Researched innovative solutions to decrease the waste produced from the products Penn State purchases
- Focused on lab spaces, office products, and dorm mattresses; Presented to State College Community

University Park, Pennsylvania

January 2022-May 2022

Unilever Supply Chain Research Project – Group Project Consultant

- Collected information to see how Unilever can use technology to predict the impacts of extreme couponing
- Conducted biweekly meetings with Unilever lead to discuss the direction and content of project research

January 2021-May 2021

### HONORS, SKILLS, & INTERESTS

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F. & S. Wenzel Honors Scholarship

Schumacher Honors Scholarship

Poole Family Honors Scholarship

Academic Excellence Scholarship (Schreyer)

Traffic Club of Pittsburgh Scholarship

Ivan A. Olson Scholarship

Adobe Creative Cloud Suite

Photoshop, Lightroom, Bridge, InDesign, Premiere

Interests

Photography, Field Hockey, CrossFit, Pickleball,

Lacrosse, Hiking, Snow/Water Skiing, Music, Comedy

Movies, Bigfoot, Fly Fishing