

2010

# Oki Data and Operations Management

**OKIDATA®**

Rowan University

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## **PART I**

1+2) The history of Oki Data began in 1972. The company was founded as a joint venture between two Philadelphia entrepreneurs and their Japanese customer, Oki Electric Industry Company, Ltd. The goal of the company was to develop and produce leading-edge information technology products to meet the rapidly changing needs of businesses. The parent company, OKI Electric, is now a \$5.7 billion corporation with over 18,000 employees. OKI Electric provides OKI Data with all of the necessary research and development resources and technology that allow OKI Data to be the customer focused powerhouse of a corporation that it is today. OKI Data now has seven international branches located in Mexico, Brazil, USA, Scotland, Japan, China, and Thailand. The United States headquarters is now located in Mount Laurel, New Jersey. The OKI Data Company is a very successful company within their field. In early 2010 OKI Data America was ranked the number one manufacturer of impact printers in the United States, holding a 53.6% market share.

Oki Data manufactures, distributes, and sells full lines of color and monochrome printers and accompanying accessories. Some of OKI Data's products include color and monochrome multifunction products, serial dot matrix printers, thermal label printers, point of sale printers, and full lines of options, accessories and consumables. All of these products are marketed under the OKI Printing Solutions brand.

OKI Data retains an incredibly customer-focused vision for their business. Customer service remains their key competitive advantage. OKI Data strives for nothing less than supreme excellence in this area, and this focus is built into the company on every level. One service that is extended to their customers is their overnight exchange service. If one of their products is rendered inoperable for any reason, OKI Data will send a replacement loaner unit and have it installed overnight so their customer can remain productive during the time that it takes OKI Data to determine and repair the fault on the original piece of equipment. This overnight replacement service is guaranteed into all of their products. To ensure that this process operates smoothly, OKI Data holds meetings every Thursday to discuss any issues that have occurred exclusively with this program.

OKI Data offers unparalleled personalization and customization services in order help its customers reduce their costs and improve their efficiencies, productivity, and ultimately profitability. OKI Data is moving away from standardized products and moving towards more customized products for their customers. OKI Data will work with a customer to completely understand their specific and unique needs and develop a product that fits perfectly into that customer's routine.

OKI Data takes customer feedback very seriously, viewing each piece of feedback as a potential opportunity for a new product. Feedback is also gained from salespeople when a bid for a project is lost. OKI Data wants to know exactly why their bid was not the winning bid. The

information received from salespeople and customers' customization requests is processed and sent to headquarters in Japan for analysis. In Japan, the company determines whether or not the suggested improvements are economically or commercially viable.

## **PART II**

3) Oki Data acknowledges the fact that quality is a central theme in any company concerned with making a product. This idea is captured by a LED sign that hangs where the technicians assemble and finalize the printers that says "Do It Right, The First Time." Before the printers are moved to the storage and logistics section of the building, Oki Data managers attempt to ensure that they meet standards. As defined by the American Society for Quality, quality is "the totality of features and characteristics of a product or service that bears on its ability to satisfy stated or implied needs." Oki Data ensures the quality of their products by having one skilled employee do the work that a few unskilled employees used to do and also through the use inspections. Now, one person installs the chip to finish the printer, pack, and ship the product. Oki Data also ensures quality through carefully designed inspection plans. With original products, the company inspects 100% of the products when production is complete until the product has proven that it is a quality product. As the quality is proven, Oki Data starts to inspect batches of the printers rather than all of them.

Oki Data also is concerned with a culture of continuous improvement and breakthroughs. After hearing about the practices at Oki Data, it is evident that they use the Plan-Do-Check-Act (PDCA) approach to continuous improvement. Members of the company frequently meet and have a meeting where they discuss plans and issues of the week. This weekly meeting addresses common concerns that have appeared throughout the company. In these meetings and also in spontaneous interactions, the managers at Oki Data use a Kaizen approach. Kaizen, which is Japanese for improvement, focuses on maintenance and improvement of procedures. The underlying theme of the company's use of Kaizen management is the fact that they accept, and encourage, input from all employees. They recognize that the employees are in direct contact with the policies management enacts. When the employees contribute meaningful input, the managers are sure to acknowledge the action verbally, with a free lunch, or even an email to the entire organization. Oki Data empowers their employees so that they feel responsible and authoritative in the organization.

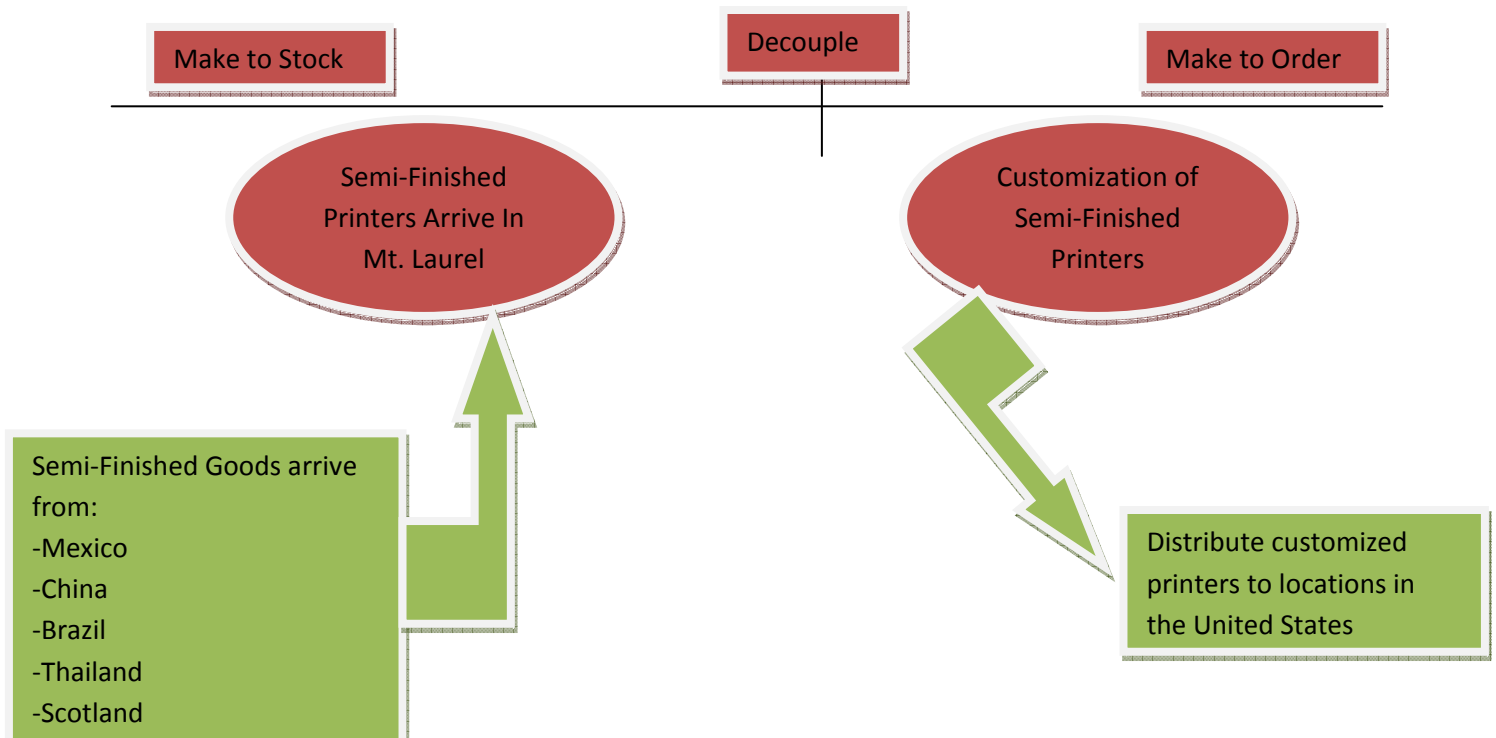
Oki Data uses the quality life cycle in a real life setting. They recognize that prevention (training) costs reduces appraisal (inspections), internal (rework), and external failure (returns) costs. The best way to reduce the unwanted costs of inspections, reworking, or returns is by training their employees. For this reason, many of Oki Data's employees attend APICS classes and earn APICS certifications. APICS, The Association for Operations Management, is a professional society for operations management professionals that provide training programs, certifications, and networking opportunities. When looking at the quality life cycle, increasing the quality at Oki Data reduces appraisal, internal, and external costs; reduces the time spent on

reworking bad printers or accepting returns; and increases their flexibility to use the Kaizen approach to strategically implement continuous improvement and improve the company culture.

4) Oki Data is located on 2000 Bishops Gate Boulevard; Mt. Laurel, New Jersey 08054. The parent company of Oki Data America has locations in Col Anzures, Mexico; Sao Paulo, Brazil; Cumnernauld, Scotland; Tokyo, Japan; Shenzhen, China; and Ayutthaya, Thailand. Before having one central location in the United States, Oki Data had a location on the West Coast in addition to the current East Coast location. However, it was determined that Oki Data was only going to have one location in the United States. Partially due to the fact that they owned the large building in Mt. Laurel, Oki Data located its US operations close to the Atlantic Ocean. This is a convenient location due to its proximity to the major ports in New York. From these ports in New York, carriers bring the goods from Elizabeth, NJ to the headquarters in New Jersey. From there, these almost finished printers receive the chip and other components to finalize them. After they receive inspection they move to the 300,000 square foot printer and ink warehouse connected to the building. Once ready for shipment, Oki Data has 26 loading dock doors which continually receive and ship products. Another convenient feature of the location is that it is located minutes off of a main highway (295).

According to the textbook, the important factors Oki Data had to consider was site size and cost; air, rail, highway, and waterway systems; zoning restrictions; proximity of services/supplies needed; and environmental impact issues. The company already owned the Mt. Laurel location which made it a good site, it is close to 295 and New York City ports, zoning restrictions did not apply since the site was set up, and the supplies needed are brought in.

Oki Data uses an assemble to order process to manufacture its printers. They used to use a line process, but now they use cell manufacturing to customize printer orders. Oki Data receives semi-finished goods from all over the world and configures these printers to meet customer preferences. Once completed, Oki Data distributes the printers all over the United States. Using this modular design approach, Oki Data is able to combine both the Made to Stock (MTS) and Make to Order (MTO) methods and use an Assemble to Order method. They are able to add the final value to the printers, and once this final touch is added they are ready to be sent.



The rationale of using this process is that one person can fully customize a customer order. They can use the semi-finished printer that arrives to the Mt. Laurel location to satisfy custom solutions for printer customers. This type of method has a significant effect on the skill level of employees. The lean process that they use requires fewer employees to satisfy customer orders. However, the employees that remain are much more skilled and must have more tools to satisfy the consumer demands. Oki Data used to train employees completely, however now they expect new employees to be “Plug and Play” and functional within days. Oki Data employees must be familiar with computers and Microsoft Excel, especially since they are now customizing the orders for individual printer customers. The employee schedule for work and training is effected by the assemble to order method. Fewer employees are expected to complete the work that more workers used to finish in the line method. However, now that they are more skilled, they are equipped with the tools to meet these expectations.

### **PART III**

5) Oki Data’s forecasting department’s mission is to, “Provide Forecast Process and Analysis to maximize Forecast Accuracy”. They intend to provide logistics solutions for Domestic and International strategies that enable to company to meet its operational business objectives. Oki Data uses both a market based and demand based forecasting system to help predict the demand for the company’s products and services. These forecast projections drive the company’s production, capacity, and scheduling systems and serve as inputs to planning such as financial, marketing, and personnel decisions. They use sales in the first 6 months and then market in the last 6 months of the year. The following below is an example of their forecasting process highlighted by key activities:

#### **Key activities**

##### **Business Day 1**

- Import data from SAP
- Add new materials, material/sales groups to “Roadmap” system.
- Run Stat Forecast

##### **Business Day 2 - 5**

- Sales and Marketing enters new forecast
- Run prelim. Forecast
- Prelim. Forecast reports

##### **Business Day 6**

- Pre-forecast meetings (Sales, Marketing, & Operations)

- Sales and Operations meeting go over prelim. Rollup, look at roll ups compared to other things and then go over results.

### **Business Day 7**

- EMT (Executive Management Team) Forecast Review Meeting
- Final adjustments to forecast
- Run management forecast roll up and download into SAP

### **Business Day 8 & 9**

- Run final forecast reports
  - Update executive summary report
  - Waterfall Reports

Oki Data's forecast is definitely guiding them successfully in the right direction, however, no forecasts are perfect and they are continuously trying to improve. They are doing this through STP, Strategic Technology Problems, which is essentially helping them find their weak points and eliminate mistakes as much as possible. Through their STP findings they were able to eliminate certain people who were not committed enough or not as highly skilled as necessary to complete their jobs efficiently and effectively. However, over the course of the past year they were able to improve their sales and are still continuing to improve their data, reviews, and factory.

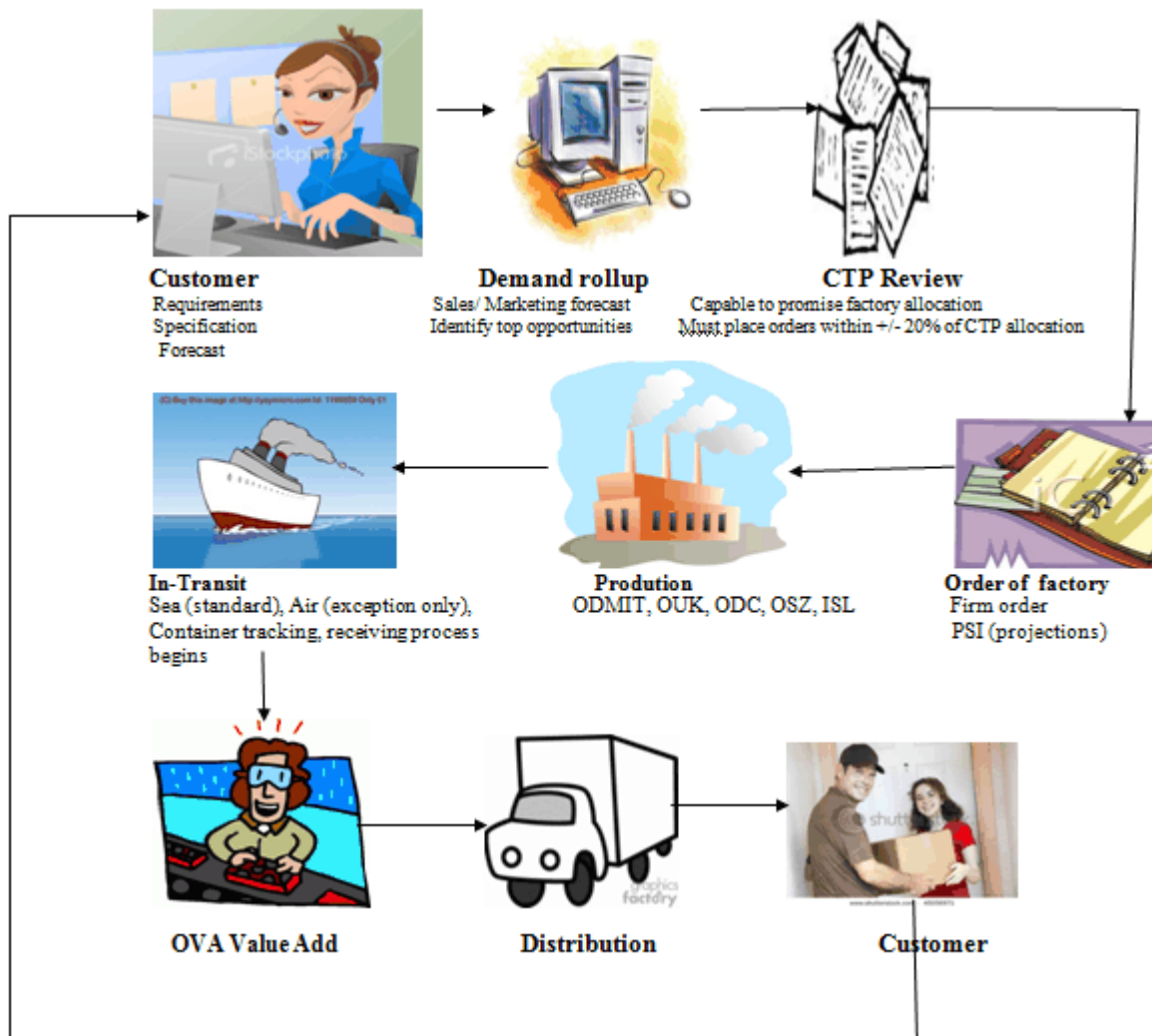
6) Oki Data carries approximately \$45 million per month in inventory. They make weekly orders each Friday and monthly orders on the 2<sup>nd</sup> Thursday of each month. To successfully control their inventory, Oki Data carefully and concisely tracks their orders as they come in. They were able to overcome recent operations issues by increasing their accuracy and timing, which has in turn allowed them to handle more money. This company definitely does not suffer from mismanaging their inventory; in three short years they went from \$45-50 million globally to \$120 million globally, that's a staggering \$70+ million increase in a relatively short period of time. As a result of such tightly controlled inventory methods, Oki Data was able to write off a mere \$10,000 for the entire year! That is a major feat for a company their size.

7) Oki Data's supply chain strategy utilizes a two-tier distribution system that begins and ends with the customer. They place much importance on the relationships and satisfaction of their customers. They often have performance reviews in which they actually sit down and listen to their customers. Oki Data also makes use of quarterly business reviews, in which they discuss the progress that they have achieved in the past quarter.

At Oki Data they attempt to outsource where necessary and possible. For example, they outsource the production of their LED parts to their factories in Thailand and Japan. However, they mostly outsource their Information Technology department, which are now three-fourths

outsourced to other countries. By doing this they intend to concentrate more on their core competencies.

The supply chain affects the flow of materials, information and finances as they move in a process from supplier to manufacturer to distributor/ retailer to consumer. Below, please see the Supply-Chain that Oki Data uses.



Also, Oki Data uses a lean inventory method to keep its supply down. All of the materials for the printers and ink are supplied from the multiple locations around the world. Once the materials arrive in Mt. Laurel, NJ, Oki Data adds its value and then finished printers are ready to be sent to the customers in North America, Mexico, Brazil, and ROLA. All of this is detailed above in the Supply-chain chart. Finally, OKI Data uses a just-in-time supply chain strategy. The philosophy behind just-in-time is one of continuing improvement and enforced problem solving. Just-in-time systems are designed to produce or deliver goods just as they are needed. OKI data

use just-in-time systems to cut the cost and improve quality. This occurs because scrap, rework, inventory investment, and damage costs are directly related to inventory on hand.

8) Every process currently used at Oki Data always has room for improvement. Once Oki Data improves a process they immediately begin to look for ways to improve it again. A significant portion of their ISO certification requires that Oki Data can measure and demonstrate continuous improvement activities. From Dennis Moore's personal perspective at Oki Data, he said they have two cultures. One is traditional and wants to maintain status quo, and the others are the change advocates. He believes to be successful in today's economic environment you need to challenge what you've done in the past and use world class best practices going forward. The companies that have strong willed change agents in their workforces have a better chance to survive.

Also, an additional possibility that could result in improvement would be the use of RFID chips. If each product had a small RFID chip in it to track its location in the warehouse, it might help Oki Data improve the operation of its 300,000 sq foot warehouse. Also, RFID would help minimize an already impressively small write off of \$10,000 in inventory when they usually hold \$45 million in materials.