Synopsis and Purpose

Diversified Manufacturing, Inc (DMI) is a multibillion dollar company which calls Denver, CO it home. DMI manufactures and distributes electronic, photographic, and reprographic equipment of a wide variety; the majority of their products are used in engineering and medical system applications.

While they have a loyal following of customers who purchase their equipment based on price and features, the company is finding that their ability to service and follow up on the equipment in the field (especially copy machines) was becoming a primary part of the customer's decision making process.

DMI is faced with revamping its entire field service business process to better service their customers and do so in a business efficient manner. One major barrier the company is facing during this transition is that many of the Field Service Division managers do not see field service as a critical part of the company's corporate strategy.

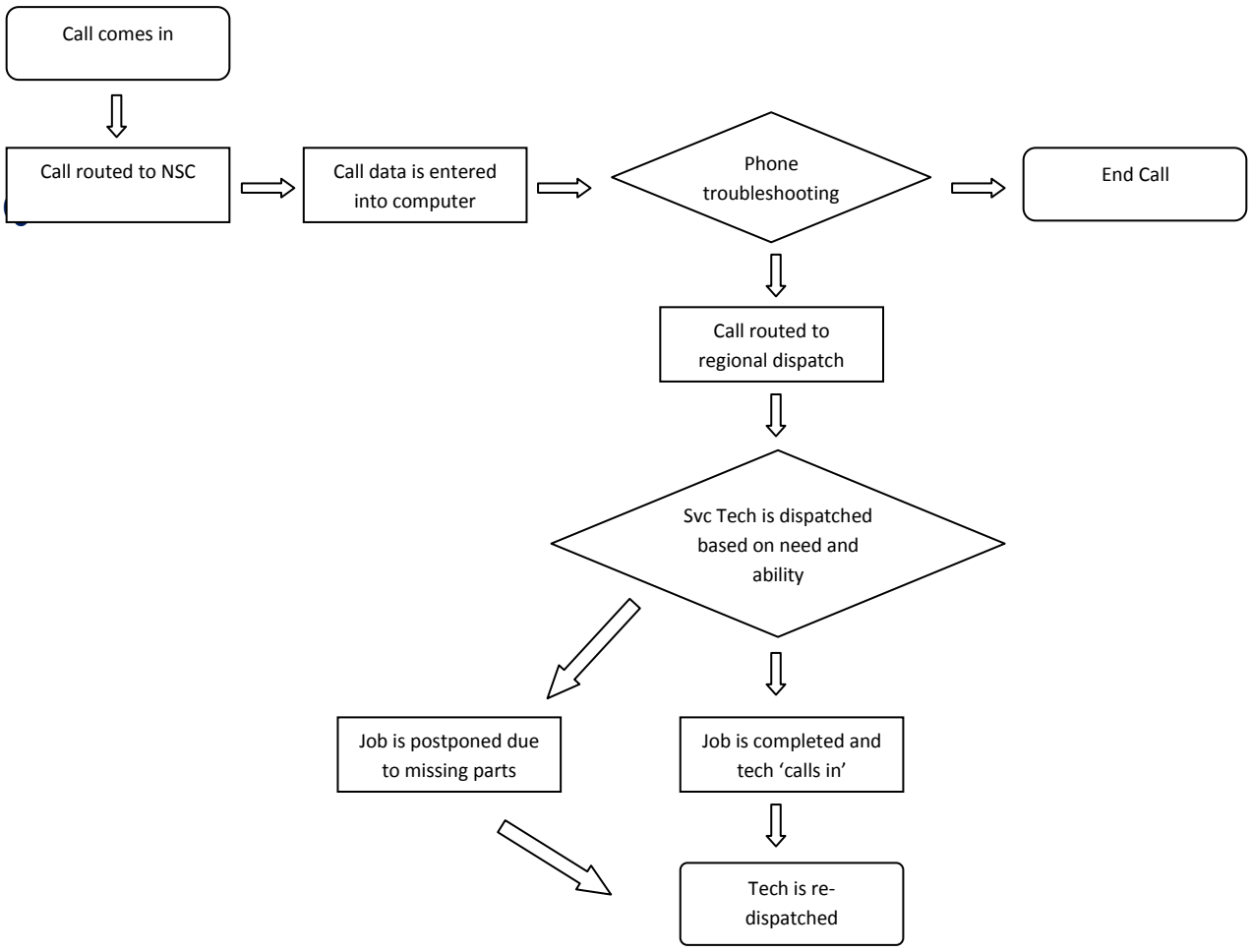
Discussion questions

1. Draw the process flow chart for a service call. Where are the queues and delays in the system and what can be done to eliminate them?
2. How might the process be reengineered? Consider some technologies that might be available to help.
3. Should DMI/FSK consolidate the regional dispatch centers into one location?
4. Evaluate DMI's service guarantee. How could this be improved?
5. Why does DMI/FSD need to measure field service performance? How should performance be measured?
6. What are the strategic issues for the division and the company?
7. How could this organization become more of a learning organization?
8. Prepare an action plan to recommend to DMI/FSD management. Be prepared to present this to the rest of the class.

Analysis

Question 1

Draw the process flow chart for a service call.



Where are the queues and delays in the system and what can be done to eliminate them?

There are a number of roadblocks in the helpdesk process that contribute to slower service and repair delays. New tickets coming into the dispatch center are only reviewed on an hourly basis; depending on when the printer was last checked, this potentially adds an additional 60 minutes of time before a customer's repair situation is resolved. In 2010, DMI should be at a point where they are no longer relying on physical printouts (which can be lost, damaged, ignored) but instead should be using a computer system that will automatically queue tickets based on priority and location.

Second, calls are first taken at the National Support Center, then an attempt to trouble-shoot over the phone is made, and finally the ticket is forwarded on to Regional Dispatch. In reading the case it appears that the "call-takers" as they are referred to, do not have technical knowledge but are simply referring to a manual when helping to trouble shoot. Since there is a significant savings (nearly $250) to DMI should they successfully resolve an issue over the phone, there should be a process in place to have *x* number of service techs on call standby at any one time so that an experienced field person can perform the actual trouble shooting with the client.

A major delay in the system is that Regional Dispatch does not seem to have productive way to communicate with the field techs; and instead relies on the techs calling in to receive their next assignment. Driver's need to have a financial (and in some cases, a job preservation) incentive to contact the Dispatch Center as they clear a call, this is definitely not the case now. Since the average actual service time is about 60 minutes there could be a significant increase in overall field productivity once the communication barriers are solved.

How might the process be reengineered? Consider some technologies that might be available to help.

Beginning with the initial call from a customer there are some significant changes from a technology standpoint that the company can make. Being that nearly 58% of the 3500 daily calls that the Call Center receives are considered emergency service, the company should determine a way to more effectively route these calls. Using an automated phone system to prioritize the calls by nature would cut almost in half the number of misc calls that the call takers handle which in turn would reduce the wait-time that callers experience when phoning in an emergency service call.

Drivers are in dire need of a way to more effectively contact the service center to be re-routed to a new call. At a minimum, trucks should be fitted with GPS trackers so that dispatchers can more effectively route the drivers to locations that are nearer their current location; in addition, trucks should be supplied with one-way company phones that have direct connects to the dispatch center; it is unacceptable that a driver calling in to get their next assignment needs to wait nearly 10 minutes just to talk to someone.

Getting rid of the "dispatch board" and computerizing that system based on driver location, call location, and priority of the call would greatly improve the time it takes a driver to reach their next assignment and also give the dispatch center a more realistic idea of when a specific ticket could expect to see a technician based on the queue.

Question 3

Should DMI/FSK consolidate the regional dispatch centers into one location?

Yes, the company currently has five centers with a total of 24 dispatchers. This averages out to only 4 dispatchers per center; my recommendation would be to consolidate into one center, fully staffed with upgraded computer equipment.

Question 4

Evaluate DMI's service guarantee. How could this be improved?

Warranties and service contracts cover nearly 80% of the emergency maintenance service calls that DMI receives. Most profitable for the company however, are the 20% of calls that are considered billable. The company offers an average service time of about 4 hours but this range can vary in either direction based on availability of service techs and the distance they are from the next site.

Two areas in specific that I think the company could improve upon are the standardized scripts read to customers regarding arrival times. The company has predefined geographical zones based on research that is years old and likely now outdated. These zones need to be updated and timeframes updated along with them. In addition, one major way to improve service would be to introduce computerized prompts to have customers notified by phone if their call will run past the 4 hour timeframe.

Question 5

Why does DMI/FSD need to measure field service performance? How should performance be measured?

DMI needs to measure their field service performance so that they can justify, with facts, the expenditures necessary to improve operations in the field. Specifically they need to determine:

1. At what level of productivity are the techs performing at; what level (how many calls per day) should they being performing?
    a. If it takes an average of 60 minutes to troubleshoot and make repairs then focusing on driver location so that they can stay in a specific vicinity will drastically increase the percentage of calls a technician can complete in a day/week.
    b. Part of the productivity will be working out a more effective system for the drivers to check in with the service center.

2. What is the current level of customer satisfaction and what metrics need to be reviewed to improve the level of service provided both by the field techs and the call center?
    a. Did the driver arrive within the window promised?
    b. Was the issue fixed the first time?
    c. What was your level of satisfaction with the initial call to the service center?

DMI takes pride in the fact that other companies benchmark them for their service parts inventory system. My question is what were the results? If 5% of calls find the technician not having the right parts in their truck, then there is a signification amount of time and money being wasted. For example, say the company as a whole completes a national average 2000 repairs per day:

Average number of Field Calls per week	Calls per week with Missing Parts	Based on $20 per shipment - Average cost to overnight parts	weekly Savings to company if overnight shipments can be reduced just 1%
		$	$
10,000	500	10,000	2,000

Average number of man hours saved per year on actual service time alone	Currently average annual overnight shipping expense	Annual savings to company if overnight shipments can be reduced just 1%
	$	$
26,000	520,000	104,000

Question 6

What are the strategic issues for the division and the company?

To stay on top of their game and provide their customer with the best possible equipment and service, the company needs to address a number of strategic concerns. Most important of which is getting a better handle on how to best run their field service program. This is becoming one of their most profitable areas of revenue but until the Field Service managers buy into this shifting paradigm, there will be resistance change. What's in their minds already works "just fine, thank you very much"

The company must review how drivers handle returns of circuit boards and ensure that effective training on the handling of hazardous materials in both happening, and being followed up on. DMI is opening itself up to potential lawsuits, and government fines (not to mention a public relations black eye) should they wake up to a 60-Minutes expose focused on how the "trained" technicians at DMI are simply tossing potentially environmentally hazardous material in the trash.

It is also time to review the way drivers keep inventory in their vehicles. Having to "overnight" often used parts can get very expensive and also time-consuming being that a tech needs to go back to a job the next day to start what they finished. The company should electronically inventory the spare-parts that a truck carries so that a driver may potentially call into the support center and find that another truck 2 miles away has the needed part and a truck-to-truck transfer can take place.

Senior leadership in the company is concerned about short interval calls – (a call that requires a tech to return to a customer site within 24 hours after a repair). There are two areas that need to be sorted out with these calls:

1. Was the return due to a misdiagnosis of the original problem?
2. Was the return trip due to coincidental breakdown of the machine after a tech has serviced it.

Not being a believer in coincidence, I tend to think that in most cases the tech likely fixed a symptom of the problem, but not the root issue; as there does not seem to be an accountability in play for these mistakes it is not out of the realm of possibility that a tech could purposely leave a job undone just so they could return to that particular site again the next day.

DMI is now facing competition from Hitachi and has gone so far as to purchase their machines and put DMI labels on the machine prior to shipping. The company is at risk of losing their "brand" as well as setting up a scenario where Hitachi can come in and offer to service machines that DMI is selling at a lower rate than DMI.

Finally, the company needs to revisit the three zones they currently use. It has been many years since this was last done and it is quite possible that areas previously part of Zone 3 (rural) may have grown and moved in the Zone 2 or even 1 now.

Question 7

How could this organization become more of a learning organization?

DMI has a long way to go before it can consider itself an effective learning organization but the very fact that they are going through the process of self examination is a good start. For DMI to become more of a learning organization and truly develop and transform based on the competitiveness of the business environment it will need to make progress in five areas:

System Thinking: DMI is doing this by reviewing its field and call center systems.

Personal Mastery: Through team training and development, the employees of the company need to become subject matter experts in their particular field. Specifically the techs in the field and the call-takers who currently are the first line of phone trouble shooting with customers.

Mental Models The company is going to need to work to change to current way of thinking of its techs and managers. While there is much that can be accomplished, there is also likely to be resistance to change from the more tenured employees who are happy with the status quo.

Shared Vision: Similar to mental models, leadership and employees are going to all need to in sync to effectively make the changes necessary to succeed against their competitors. If field service is going to become a primary focus of the company than the corporate vision is going to need to reflect that.

Team Learning: Techs work out of their homes and rarely come to headquarters. I would like to see a situation where once per quarter techs meet in a central location for refresher training and FAQ learning. It is likely that many of the more experienced techs are diagnosing common issues much faster than rookies – the company needs something in place to share that knowledge.

Part of this learning should include a set of Best Practices that phone personnel, service techs, and customer service reps all follow. Doing this will help to ensure that all areas of the company are being consistent and also following set polices and standards.

Question 8

Prepare an action plan to recommend to DMI/FSD management. Be prepared to present this to the rest of the class.

I would make the following recommendations to DMI/FSD management:

1. Begin working on a plan to create a new strategy that will help to change the paradigm that management and field teams have about the current corporate culture.
2. Replace the printer in the service center with a computer system that will route calls based on priority and location.
3. Put a program in place to have service techs available to assist with phone troubleshooting
4. Create an initiative that will give drivers an incentive to make contact with the service center after a job is complete
5. Fit trucks with GPS devices to more effectively track the location of trucks.
6. Replace the magnetic “dispatch board” with a computer based system
7. Close four of the dispatch centers and consolidate into one primary center
8. Add a program that will initiate phone calls to customers who will need to wait more than 4 hours
9. Benchmark the service parts inventory system
10. Begin formalized training and follow up to drivers for hazardous material disposal
11. Revisit the three zones currently in place
12. Explore the option of hiring an executive level position to lead a “Learning Organization” culture initiative. Specifically focused around personal mastery and team learnings.