



The Incident at Waco Manufacturing

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CIS 410-01

April 3, 2020

Introduction

Waco Manufacturing is a leading supplier of custom-machined parts for the automotive industry. In 1986, Waco Manufacturing implemented a new security and information system in one of their plants. This system used transceivers which were installed around the plant every 25 feet and in the badges of all employees. This system was used to have continuous tracking of the location of each employee. They used this technology to integrate many new applications. An example of one of these applications is every time a telephone call was made to employee, the nearest phone to that person would ring, even if it is not the individual's personal office phone.

The Problem

In September 1987 at Waco Manufacturing plant Monique Saltz, the area manager, was unsatisfied with the plant engineering manager, Monk Barber, for being behind schedule on producing the designs for composite-based products required for their 1987 plan. Barber supported Saltz in being discontent about the delay and says he has met with the three engineers assigned to the project, Sherman McCoy, Telly Frank, and Wanda Gorgan. Barber supposedly assigned the three to the project himself, explaining the importance of the designs repeatedly. Barber believes the three engineers have chosen to not respond to the request for the designs and ignored the importance of Saltz's request. Saltz then met with the three engineers assigned to the project, McCoy, Frank, and Gorgan, to address their lack of participation with Barber and their inability to understand the importance. Gorgan mentions to Saltz that she does not remember ever speaking with Barber about the composite design

project and the two other engineers agreed. The engineers did know the project was expected for the 1987 plan, but Barber has never told them the importance or met about the urgency of the project.

The incident at Waco Manufacturing arises when Saltz finds herself in between two stories that do not line up. Barber has stated that he has made the impression to the three engineers that the project is very important and a high priority for Saltz that the composite-based products designs are completed. Unfortunate for Barber, it is three against one. The three engineers have all told Saltz that they were not informed of the importance of the project. This leads to Saltz investigation and the use of the transceiver security and information system. Shelly Tomasa, a plant manager, is described the situation and suggests review the plant's record of employee locations using the transceiver system. When Tomasa and Saltz review the records, they discovered that since the beginning of 1987, Barber, McCoy, Frank, and Gorgan have never all been in the same room at the same time. The results of the information side with the three engineers and their perspective of never being informed by Barber about the importance of the project after Barber said he has had these meetings several times. The evidence is clear, but now Saltz must find decide the next step to take to assign accountability for the project not being completed and create a punishment for the employee(s) that lied to their superior.

Industry Competitive Analysis

Mission Statement

Waco Manufacturing is a leading supplier of custom-machined parts in the automotive industry.

Generic Strategy

Waco Manufacturing has a differentiation strategy creating custom parts for their industry.

Porter's Five Forces

Threat of New Entrants – The threat of new entrants into the automotive industry is somewhat high, as the custom-machined products can be replicated, but they are still the leading supplier.

Threat of Substitutes – The threat of substitutes is low because they are the leading supplier in the automotive industry with custom-machined parts that are used for specific automotive functions.

Bargaining Power of Customers – The bargaining power of Waco's customers are high because there are still likely to be alternatives in the automotive industry despite their leading position. Customers can easily switch companies with similar parts.

Bargaining Power of Suppliers – The bargaining power of Waco's suppliers is low because they design and engineer their own parts. Their information systems suppliers likely also have many substitutes.

Competitive Rivalry – With Waco Manufacturing's position as a leader in the automotive industry they are likely to have a high threat of rivalry. To continue competing at the highest level they must continue to innovate ahead of the competition.

Stakeholders

- Monique Saltz, Area Manager.
- Monk Barber, Plant Engineering Manager.
- Sherman McCoy, Telly Frank, and Wanda Gogan, Engineers (Assigned to project).
- Shelly Tomaso, Plant Manager.
- All Waco Manufacturing employees.
- Customers of Waco Manufacturing.

Occam's Razor

The incident at Waco Manufacturing has occurred once Saltz was told by the three engineers, McCoy, Frank, and Gogan, that they have not met with Barber to discuss the importance of the designs for composite-based products required for their 1987 plan. Prior to the three engineer's statements, Barber has told Saltz that he has assigned the three to the project and stressed the importance of completing the designs multiple times. The system installed into each Waco employee's badges, identify evidence that Barber has never met with the three engineers assigned to the project at the same time. Occam's razor is the philosophy for eliminating the most unlikely explanation out of two. Therefore, the simplest explanation is often the more correct. At Waco, Barber has stated that he has repeatedly told the three engineers assigned to the project how important it is to have the designs made for the 1987 plan while evidence shows that the four members of the project team have never been in the same room at the same time for the entire year. It is three engineers who have stated to not known about the project versus one engineering manager who says he has tried his best. It is

clear the most likely explanation to be true is the information given from the transceiver system showing they have never all met as a project team. This information aligns with the explanation of the three engineers and somewhat against Barber's explanation. It appears to Saltz that for Barber to be telling the truth, he would need a complex explanation for why the three engineers have told their superior that they cannot remember meeting with Barber about the composite design project and why the system shows they have never met in the same room at the same time for an entire year.

In philosophy, Occam's razor does not identify an objectively correct explanation out of two, but it does help identify the explanation requiring the fewest assumptions (Hiroshi). The decision of Saltz depends on the need for a better explanation from Barber. Saltz could continue using the system to see if Barber has met with two out of the three engineers or even one, during the year. The final decision to hold the employee(s) accountable for the project not being completed depends on whether Saltz will take the simplest explanation and trust the technology or if she will question it all to reach a definitive answer.

Alternate Decisions / Effects on Stakeholders

1. Do Nothing

Doing nothing about the incident at Waco Manufacturing would cause the employees to get to notice they can lie to their superiors without consequences. The employee(s) that have not been truthful during their explanation to Saltz will likely attempt to do it again. Projects also have strict beginning and end dates and either the manager in charge of the project, Barber, is unable to have authority over the engineers assigned to a project, or alternatively three

engineers have ignored their manager's impression on the significance of the projects they are being assigned. Doing nothing enables employees to make dishonest explanations to a superior and allowing not even their transceiver information system to hold employees accountable to meet in a group to work on projects. "Utilizing' a resource means making use of the resource in a way that moves the system toward the goal. 'Activating' a resource is like pressing the ON switch of a machine; it runs whether or not there is any benefit to be derived from the work it's doing" (Goldratt). The evidence can be used to testify against the employees, or else it is a wasted system. Barber would likely see no punishment for not meeting with his team of engineers after making a statement that he has repeatedly met with the three engineers to Saltz. The three engineers will eventually complete the project, but likely very behind schedule. Saltz will be very disappointed in the employee's for not understanding the importance of the composite designs project and will seldom see a project completed on time. The employees of Waco and Tomaso will see that the transceiver information system is unlikely to lead to any consequences by their superiors and can lead to workarounds.

2. Punish Barber for the evidence against him.

With the evidence found by Tomaso and Saltz a tracked record on the transceiver system that Barber, McCoy, Frank, and Gogan have never been in the same room at the same time since the beginning of 1987, it can be immediately assumed that Barber could have never told the employees about the important composite designs project. If Saltz were to follow Occam's razor and agree with the simplest answer out of the two, she would likely immediately punish Barber under the evidence that he has never met with the three engineers for the very important project. He could be demoted as an engineering manager or even fired for lying to a

superior and causing the project to be behind schedule. Barber is in charge and could take full responsibility for the three engineers not remembering ever meeting with him. From another perspective, Saltz may not have told Barber about the importance of the project causing him not to fully pass information top-down to the engineers. Punishing Barber because the explanation against him is the easiest to understand is not right to do. Saltz and Tomaso should press for more information or make changes to their projects. "Just as decision-making premises influence the kind of decision that are made, the hidden and sometimes unquestioned assumptions that are built into the design of information systems can be of crucial importance in structuring day-to-day activity" (Morgan). Punishing Barber based on the information given by the transceiver system is a hidden design that could lead to the punishment of an employee without their knowledge that the location information could be evidence to do so. According to Morgan information systems are designed with hidden assumptions and the information system at Waco Manufacturing is built with many assumptions of what an employee was or was not doing at a certain place at a certain time. Immediately punishing could lead to misjudgment using a lack of information to lead to punishing the wrong individual. Barber would be affected by either being wrongfully punished or terminated and this could hurt Waco Manufacturing by creating a lawsuit. Something must be done but punishing based on the current evidence could cause more problems.

3. Require project teams to meet at the same time inside the plant and report to a superior when not.

Saltz and Tomaso have found very narrow evidence that Barber and the three engineers have not met in the same room at the same time in the entire year of 1987. The duality of

this situation has a very clear way of finding Barber guilty of lying to Saltz while the other could be a complex explanation to why there is evidence that they have never all met at once. In order to leverage the transceiver information system as a control measure, managers must create a policy that requires their employees to meet in the same room at the same time for projects or else they must report to the manager why not. "Software can be designed to constrain the user or give the user great discretion" (Cash). This policy may cause employees to feel like they have lost autonomy in working on projects. Barber may have never met with the three individuals at the same time because he may have believed employee autonomy and trust was important for workers to complete their tasks then report back to him once they are finished. Barber may feel constrained after a policy is created requiring him to meet with employees. Since the project was late when Barber had more autonomy in his work there, something must change. After this policy is created the employees working on the project are accountable for late completion if the manager has met with them to describe the importance of the project. Also, the manager of the project is accountable if they never have their team in a meeting room together and did not report to a superior why the team has not met.

Recommendation

I recommend creating a policy that requires project teams to meet at the same place at the same time inside the plant or else managers must report to a superior when not. With this policy, superiors will no longer have to chase employees to find out why a project is late or find out why employees are not meeting consistently for important projects. This policy can be

implemented by executives to make sure their project managers report to them every time project teams do not meet about important projects in the same room at the same time. This will make good use of the new transceiver information system tracking records and employees will feel their actions of ignoring important projects can have consequences after their superior checks the location reports. Cash has outlined the use IT and the importance of employee privacy and described that monitoring systems do four things:

“Set standards for the time it should take to produce certain units of work.

Monitor the actual time it takes to produce each unit of work.

Analyze the variance of actual from standard time.

Provide data for use in planning, cost estimates, productivity improvement, and sometimes wages” (Cash)

The use of the transceiver monitoring system can be used for improvement of project performance, completion times, logging number of meetings, and used to set standards for project goals to meet. It can all be done while protecting the privacy of individuals while at work and keeps the use of the system strictly within the four objectives of using a monitoring system.

To solve the incident before the policy is implemented, Saltz would have had to question Barber for if he has met with the three individuals at the end of 1986 or even before the implementation of the transceiver system, since they are only looking at raw transceiver data in the time period of 1987. Saltz can question whether the three engineers have met with Barber over the phone or at a location outside of the plant all at once to discuss the project. If it has

been multiple months since they have all discussed the project together it can explain why the three engineers say they do not remember meeting with Barber. Now, Barber must report to Saltz these alternative meeting situations to explain why the project teams have not all met in the same room at the same time before the meeting. If Saltz is unhappy about a delayed project and Barber has not reported a reason to why the team has never met, then Saltz is in the right to immediately punish Barber based on the location records. Barber would be required to report if an individual is not attending the repeated meetings and that could also lead to the absent employee's punishment. "All those calls and meetings were firefighting. I remind myself. No fires, no fighting. Now, everything is running smoothly— almost too smoothly" (Goldratt). Waco Manufacturing can now who is accountable will save the team a lot of time and money in the long run. It will no longer be necessary to meet with multiple individuals assigned to a project just to find out who is to blame, everything will run smoothly.

Works Cited

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