**PROBLEM DEFINITION WORKSHEET**

**PROBLEM STATEMENT:**

I have been hired as a freelance consultant for Dobber’s Machine & Tool (DMT) which is a manufacturing company located here in San Diego, California. DMT is a small family owned machine shop that is struggling with their current quoting process. DMT has expressed that when they receive RFQ’s the current process is very manual and extremely time consuming. The current process lacks efficiency and accuracy resulting in decreased profits for the company. There are inconsistencies with material quotes provided to customers due to the lack of a reliable database and tracking system. DMT often misses RFQ deadlines because they are unable to turn around the quotes in the time requested resulting in a loss of the opportunity to bid on the job. DMT is also experiencing frustration from customers due to the inconsistency from one quote to another. They believe that an improvement to their quoting process will take them to the next level in business and success for their company. DMT desperately needs re-engineering of their quoting process to improve organization and consistency of data, as well as timeliness of RFQ turn-arounds and overall increased profit margins.

**BUSINESS IMPACT:**

It is important that DMT has a reliable and efficient quoting process in order to not miss bids, obtain new work and overall keep their doors open and the business profitable. The benefit in solving the quoting program would be to set a profitability goal that can be standard across all quotes. For example, in a central database, once we establish the costs for all labor, material & overhead, then DMT would be able to apply a standard percentage of profit to all jobs, rather than just winging it from job to job and bidding inconsistently. This would in turn create consistency and ensure that a profit is in fact being earned on all projects performed in the company and DMT would know with confidence that they are not performing in a loss position. DMT would like to earn a standard 30% profit margin on all jobs. Through the current tracking system, DMT accepts per job profit margins that range from 5% to 50%. This inconsistency can cause monthly fluctuations in company profits varying from $1,000 to $10,000 monthly. If DMT can ensure at least a 30% net profit margin is being earned on all jobs, then they will be able to continue operations and growth the business with confidence. As it is now, the business is in need of a more reliable structure which will in turn greatly assists with their financial forecasting and profitability. The goal is that if we take on enough jobs that for example cost us out of pocket $10,000, then DMT will include a 30% profit margin which would in turn result in an earning of $3,000 in profits. The 30% profit margin goal is essential in order for DMT to earn a reasonable monthly profit for the owners of the LLC. Success will be measured through a detailed and organized tracking system and quoting tool that I am in charge of developing. The quoting tool will clearly identify each job, include detailed time/labor analysis that it will take to perform each job, outside processing costs, material costs, the total to include the new 30% profit margin goal and a column to track which jobs we actually receive the purchase orders for and which ones we lost the bids on. From that result we will be able to learn how our new quoting process is working and if our 30% is competitive or needs to be adjusted for future RFQ’s. The key measurable output will be the final profit margin that is finalized in the bid for all accepted jobs. The goal is to remain consistent across all jobs rand through DMT.

**GOALS:**

The goal of this process improvement is to create a consistent quoting tool to ensure that DMT bids are including a 30% profit margin on all jobs. This will create profit margin consistency and reliability that is far from what we are experiencing in the current quoting process.

**PROJECT SCOPE:**

The boundaries of this process improvement will be between Monday through Friday during regular business hours 8:00am – 5:00pm. The first step will be to analyze the current quoting process in more depth and then work on developing a new and improve automated quoting tool. After utilizing the new tool in the coming weeks, the final step will be to analyze the results of the new process and plot out the profit margins of the awarded bids. In final analysis we will be able to see how the new tool has affected the company and if the results are a success in creating a consistent profit margin and quoting process. Out of my scope would be the financial goals determined by the business owners as well as the raw data that will need to be provided by the general manager to me in order to incorporate into the database. For example, I will need the company to provide me the estimated labor hours, cost of material and cost of outside processing per RFQ in order to incorporate this data into the quoting tool. After the initial beta and testing of the tool, I will train the company manager on the model to successfully implement the new process and tool when my consulting period of performance has been completed.

**TEAM:**

The team will consist of myself to create the actual quoting tool and database model in excel. Dobber is the owner, programmer and machinist that will provide me with labor times that will be utilized in the quoting tool per RFQ. David, the general manager will provide me with material quotes and outside processing quotes that will be utilized in the new process and quoting tool.

**PROJECT PLAN (VERY HIGH LEVEL):**

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|  | **STEP** | **DESCRIPTION** | **DATE** |
| **1** | DEFINE | Identify the problem and the team's scope | 7/7/2019 |
| **2** | MEASURE | Develop data collection plan and implement it | 7/21/2019 |
| **3** | ANALYZE | Determine root causes; identify and verify critical variables | 8/4/2019 |
| **4** | IMPROVE | Develop/select/pilot and then implement a solution | 8/25/2019 |
| **5** | CONTROL | Put a control plan in place; ensure the problem stays fixed | 9/8/2019 |

**PROCESS MAP:**

Please see on next page.

