



جامعة الجميع الذكية
EVERYONE'S SMART UNIVERSITY

Everyone's Smart University

Project (Spring 2021)

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Improving Process for Muhran Spare Parts

1. Introduction:

Muhren Spares has always kept on the cutting edge of technology and seen to be leaders in our field of development, and we are investigating the opportunities that may exist by assisting a Frankfurt-based German car spares company in a distribution operation which is vital to all its customers.

The two sister companies that support the leading distributors are the production and packing team in Barcelona, Spain, Espadrille workshops, and the marketing and communications team located in Milan, Italy, Al Forno Voce.

The roles undertaken within the co-operative are that AL Forno Voce collects in the requests for sales, typically this is done through email, but some traditionalists still believe in sending handwritten requests Muhren Spares.

The requests are then passed through to Espadrille Workshops who make the bespoke products before sending them for distribution by Muhren Spares with their express delivery service.

There are six stages to cover the end-to-end process to obtain product requests, manufacturing, quality assurance, and distribution.

The project is to how to resource the company processes better, manage the risk behind an improvement/learning project, and finally, time management to deliver the product outputs.

This project has been allocated a timescale of six months to be completed with the deliverables expected as per this request.

The budget is a little tight for this timescale as well, as your project has been allocated a total budget of \$125k.

Our company received this project proposal to assess and study it and return with two working weeks, and I was assigned as the project manager to evaluate the project and find out the weakness in the process and estimate the improvements add.

2. Project Assessment:

Muhan Spare's operations fall into six phases that cover the end-to-end process to obtain product request, manufacturing, quality assurance, and finally, distribution.

In Request handling, Muhran has requested us if we can help modify the Alforno Voce's system to increase the throughput into the second stages. Alforno Voce's team has low productivity in analyzing handwritten requests compering to electronic submissions. The throughput deliveries for handwritten is around 5-10 hours per terminal, but the electronic throughput deliveries are 20-30 terminals, knowing that there are six terminals for electronic receipts and two further for handwritten requests.

Also, for the recruits in Alforno Voce to get trained, it will take 20 days on the job training before handling the handwritten materials, although the new employee will take five weeks to know that role.

In product Production, Muhran has requested to see how we can increase production volume and ensure that the quality assurance is carried out successfully to minimize waste. Espadrille team has communication issues between production engineers and the quality-assured team, low throughput due to inspection rate, and overstretched production engineers.

In Deburring and Packages, Muhran requested to find a way to increase the process in this area, reducing the strain on the rest of the whole delivery and manufacturing system.

3. Stakeholders:

Our committee board will consist of Muhran "client," Alforno voce representative, and the espadrille representative will help us achieve the project. The Production Manager who will be organizing the site and the requirements, Muhran consultant, Local Authority.

4. Scope:

Our priority focus will be on deburring and packages. To improve the process map for this area, we are recommending the following:

◆ Developing the whole producing line to increasing the throughput efficiency by applying resource scheduling and installing new automated machines for deburring and packages.

5. Risk:

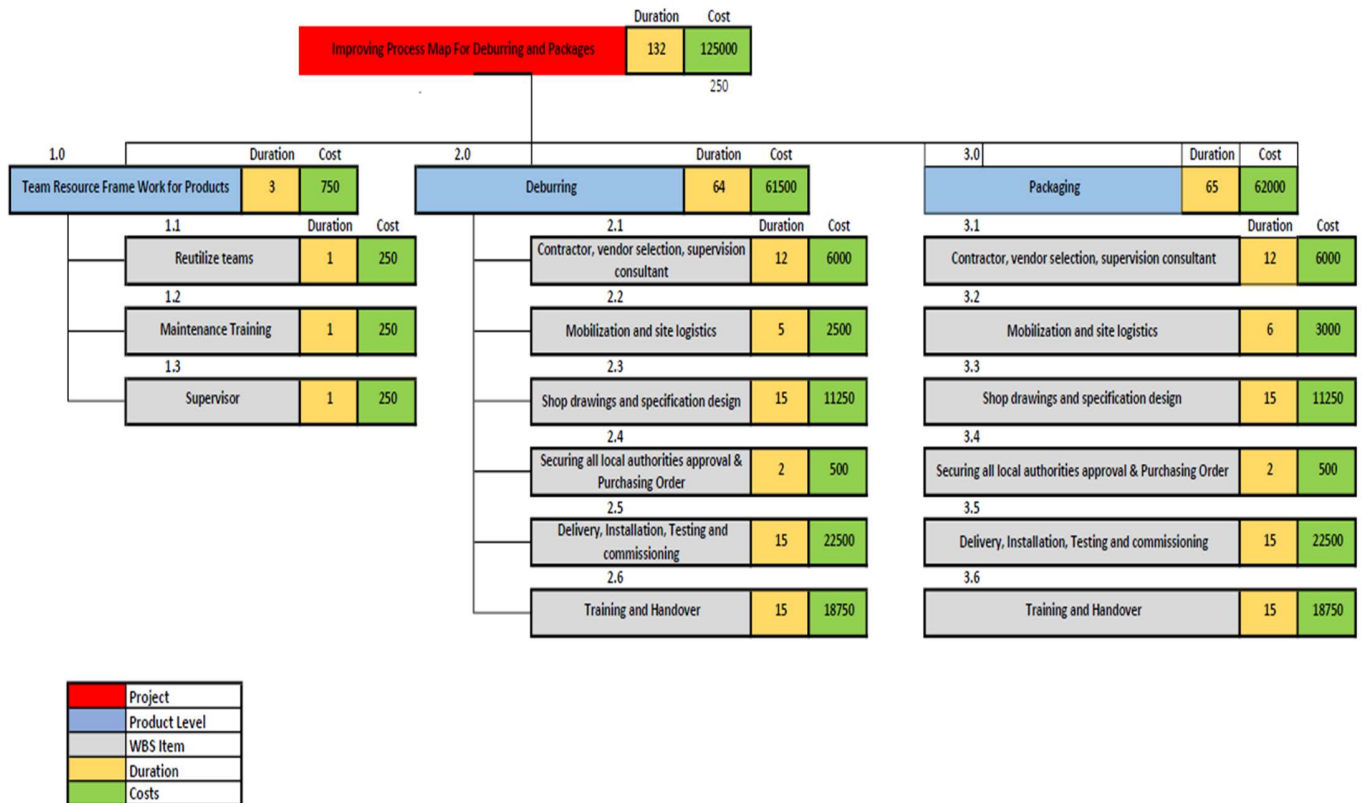
There are minimal threats that are improving, will be as following:

- Time cost in training the teams on new machines.
- communication issues.
- Operation time during high pressure.
- Stakeholder.

On the other hand, there is a high outcome of opportunities, will be as following:

- Providing high-quality deburring and packages.
- increases in the throughput of products.

6. **Estimation and WBS:** The cost of improving deburring and packages process, approx. 125000, and profit income by improving deburring and packages will lead to revenue increases, customer trusts, on-schedule delivery.



• Milestone:

To meet our delivery date and estimated cost of the project by preparing milestone and indicates activities for better control will be as following:

- Project duration will be six months = 132 calendar days.
- Contractor, vendor selection, supervision consultant selecting and signing the contracts will take up to 1 month.

- Mobilization and site logistics period is three weeks.
- Contractor starts on-site layout design for machines foundation and other related and assessed and approving shop drawings by the consultant will take up to 1 month.
- Securing all local authority' approval will take up to 1 week, such as health, safety, environmental, and industry departments.
- The delivery date of deburring and packages automotive machines will be two months after releasing the purchase order.
- Install, test, commissioning, training, preparing End-user manuals, and final handover will take one month.