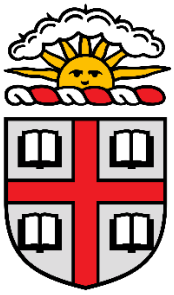

BROWN UNIVERSITY

SCHOOL OF ENGINEERING

Assignment 11

ENGN2125 Spring23 Engineering Management & Decision Making

Georgios Koutsoumpis

Writing Prompt 1

After taking into account the Mighty Jaxx value chain, I believe that the "Use 3D renderings and drawings as input to producing molds for manufacturing" function could benefit the most from implementing scrum/sprint methodologies.

Scrum/sprint methodologies are based on iterative development and teamwork. The goal is to break down large projects into smaller, more manageable tasks that can be completed within a set timeframe, typically two weeks. This approach can help teams to work more efficiently, stay focused on their goals, and quickly identify and address any issues or obstacles that arise.

For the "Use 3D renderings…" function at Mighty Jaxx, implementing scrum/sprint methodologies could help to streamline the production process, ensure that team members are collaborating effectively, and deliver high-quality products in a timely manner. Specifically, the team could use scrum/sprint to break down the production process into smaller tasks, prioritize those tasks, and establish a regular cadence for completing them. For example, the team could use sprint planning meetings to identify the tasks required to produce a new mold, estimate how long each task will take, and assign those tasks to team members. They could then work to complete those tasks within a set timeframe, such as a two-week sprint. During daily stand-up meetings, team members could discuss their progress, identify any obstacles or issues that need to be addressed, and adjust their approach as needed. At the end of each sprint, the team could hold a sprint review to evaluate their progress, identify opportunities for improvement, and adjust their plan for the next sprint.

While kanban is also a popular agile methodology, it may not be the best fit for the "Use 3D renderings and drawings as input to producing molds for manufacturing" function at Mighty Jaxx. Kanban focuses more on visualizing the workflow, managing flow, and limiting work in progress. While this can be useful in some contexts, it may not be as effective in a production process that requires close collaboration between team members, as is the case with mold production at Mighty Jaxx. Scrum/sprint, on the other hand, emphasizes teamwork, communication, and iterative development, making it a better fit for this particular function.

Writing Prompt 2

Mighty Jaxx's Production function could benefit the most from implementing kanban methodologies. Kanban is a lean manufacturing methodology that helps teams visualize their workflow and limit work in progress to optimize production efficiency. This methodology can help Mighty Jaxx's Production function manage their inventory and reduce waste.

To implement kanban in the Production function, Mighty Jaxx can create a kanban board with columns representing the stages of production. The possible columns in the kanban board could be:

Backlog	Ready to Produce	In Production	Quality Control	Packaging	Shipped

Kanban is a good fit for production because it provides a clear visualization of the entire production process, allowing for better management of inventory and production processes. It allows for continuous improvement by identifying bottlenecks and optimizing workflows. However, scrum/sprint methodologies are not the best fit for production because they are more suited for knowledge work, such as software development, where the work is less predictable and more iterative. In production, the workflow is more linear and predictable, making kanban a better fit for the purpose of optimizing the process.

Writing Prompt 3

Dear Jackson,

As a consultant with expertise in cognitive biases, I would like to caution you about the overconfidence bias, which is the tendency to overestimate one's own abilities and the accuracy of one's predictions. This bias can lead to poor decision-making by causing individuals to be overly confident in their judgments and dismissive of contradictory evidence.

If you fall prey to this bias, you may overestimate your team's ability to successfully implement agile practices, leading to unrealistic expectations and potential failure to meet project goals. You may also overlook important risks and uncertainties associated with the transition to agile, leading to blind spots in decision-making.

To avoid the overconfidence bias, I recommend that you actively seek out diverse perspectives and opinions from both within and outside of the organization. Encourage your team to challenge assumptions and consider alternative viewpoints. Additionally, be open to feedback and regularly evaluate the progress of the agile implementation to ensure that you are staying on track and addressing any issues that arise.

Best regards,

Georgios