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AUGUST – DECEMBER 2022 SEMESTER 5

CASE STUDY UNIT1

SECTION : C **TEAM NUMBER:6**

TEAM MEMBERS :

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TASK – 1: AGILE & SCRUM

With regards to the case study, answer the following questions:

1) Answer the following questions based on your understanding in not more than 10 sentences
    - Identify from the observations, where all would you think Service Inc. did not meet the intent of the Agile Manifesto

    (any 10)
    - The AGILE Manifesto states 4 values .
    - **Individuals and interactions** over processes and tools
    - **Working software** over comprehensive documentation
    - **Customer collaboration** over contact negotiation
    - **Responding to change** over following a plan.

- Service Inc.'s air tight requirement building operations along with the tendency to freeze the resources flouts the value of adaptability.
- The point of having trained project managers focussing on coordination violates the individuality of the team members and engineers working on the project.
- The concentration on elaborate processes and extensive documentation which is tiresome violates the principle of building an actual software.
- The shielding of Product Inc. by Service Inc. from customer complaints, resource and sustenance issues which is deemed to be successful violates the principle of customer negotiation.
- The focus of the Service Inc. SVP over procurement of a part of product line rather than modernising or optimising the product engineering.
- The Service Inc.'s relationship with their accounts in Product Engineering Space is only about sustaining discontinued products rather than generating new products and working closely with these accounts on the new technology.

- Identify from the observations, where all would you think Service Inc. deviated from what is expected from a SCRUM implementation. (any 10)
  - Most experts agree that stand-up meetings should last no longer than 15 minutes, and that each team member should plan to speak for up to one minute, but no longer. But, Each of the team members took 10 minutes to update and for an 8-member sprint, daily stand-up meeting took 60-90 minutes including all the discussions.

- It is not advisable to rotate scrum master role, but Scrum Master and Product owners are rotated across sprints.
- It is not advisable to change composition of team in mid-sprint, but new developers were brought into the project in the middle of evrey sprint.
- It is not advisable for scrum master to make commitments on team's behalf
- It is not advisable for scrum master to assign tasks to team members
- The Development Team commits itself to implement all the items on the Sprint Backlog. Changes are not allowed during the Sprint; no work can be added or removed. This offers the team the necessary focus to fulfil their given commitment. But the sprint backlog underwent changes till 3rd week
- At the end of each sprint, there are two meetings held: the sprint review and the sprint retrospective. The sprint review's purpose is to inspect the increment that was developed in that sprint and collect feedback from key stakeholders, but here both detailed presentation about the just concluded sprint and Feedback was collected from all members in sprint review itself.
- By the end of the Sprint planning meeting, the tasks that are required to finish on the first day get assigned to the development team. The Scrum master will keep assigning further tasks to the team daily. But in case of Service Inc. after the Sprint planning meeting, task list was only a draft. The product owner discussed the draft with the centre manager and based on his feedback, there were few online discussions with the

scrum master and team members following which task list is finalized by end of 1st week of the sprint.

- In service Inc. the backlog at the beginning of the scrum is more ambitious than the average velocity of the scrum teams recorded so far as the teams prefer to take ambitious targets. They were encouraged to do so. But, it is not advisable as the target should be met in given time in Agile model.
- To create a product that stands out from the rest, Scrum product owners must possess a thorough understanding of the customer as well as their market. But, Product owners in the scrum teams have worked with the products ever since the centres have been set up but have never met a customer.

- Discuss each of the findings in the table and indicate whether the finding contributed positively or negatively in go/no go recommendation and indicate with ~5 sentences why it is so.
    1. One of the most important components in SCRUM philosophy is the daily scrum meetings. Carrying out daily scrum meetings would have contributed positively. However , each of the member took about 10 minutes which for team of 8 people would approximately required 80-90 min instead of the meet being for about 15 mins taking a significant amount of time due to which it can lead to time wastage. And also rotation of the scrum master and product owner across sprints contributed negatively to go/no go recommendations.
    2. In a sprint with a 4 week duration, quality engineers are joining after 2 weeks as they are

rotated among projects, this shouldn't be the case as the scrum team should be dedicated to the particular project for the entire sprint for better and faster improvements and for achieving the goals. also the test engineers wrote the test cases in the 3rd week instead of working right from week 1 itself, as a result of which there was nothing to test until week 3. This would negatively remark for a go/no go recommendation

3. In this case the project managers are trained to become scrum masters unlike a professional scrum master. As specified here the scrum master is deciding and assigning the tasks among different team members which is not the case in an ideal situation. As scrum teams are self-organising and they themselves decide what work is supposed to be done by them. Also scrum master making commitment on behalf of the team is not supposed to be done. He should only facilitate the owner to maintain and prioritize the backlog items. This would negatively remark for the go/no go recommendations
4. According to the Agile-scrum , within the sprit there generally shouldn't be any changes made to the requirements, so that it is fixed and the team can work on it in a full flushed manner. Now due to the emergency issues, the sprint deliverables are heavily compromised and this would lead to an negative remark for go/ no go recommendations
5. The main task of the sprint review meeting is to share information with the customer in the most transparent manner and also see upon what all

work is done and work that is remaining and also what work is added on and the work removed. There is no point in making the meeting so long and should be kept as short as possible (upto 1 hr). also the feedback of the product should not only be from the members but also from product owners and stakeholders for better improvement and faster release of final product and changes if any.

6. After the sprint planning meet , task list was a draft. The list finalisation and the entire sprint planning along with selection of items for product backlog etc. have to be completed along with the backlog refinement within the first week. Where as In the given situation only the draft of task list and meetings with scrum master have been completed which ideally shouldn't have been the case. This negatively impacts the go/no go recommendations
7. The velocity of sprint refers to amount of work completed by team in one sprint. Now in accordance with the information given the backlog in the biggening of the scrum was much more ambitious and took up to do more work, and could also mean that the scrum teams were given quiet a lot of tasks which could not be achieved. Thereby this would lead to making false promises to the customer and showing ideal goals which cant be achieved this would lead to negative go/no go recommendations
8. The main idea of SCRUM is to get the customers review after every sprint so that there can be any improvements and modifications made to the

ongoing project/product . and thus customer review plays a very important role, on basis of which the sprint team would get to know what changes have to be made and where are the glitches. Here as stated even though the product owners in the scrum teams have worked with the product since start but as the customers were not involved to get the feedback this would result in a negative impact on the go/no go recommendations

2) How can Service Inc. achieve 40% growth in margin while achieving only a 25% growth in revenue?
    - Cut overtime and excess staffing as much as possible, and focus on areas of waste.
    - **Minimize supply**: spend as little as possible, and ditch the fancy printed goodies, Team outings.
    - Also automating specific tasks can reduce time and workforce.
    - Optimize the marketing strategies. Make use of digital ads instead of traditional television ads.
    - Be thoughtful while deciding the prices. There can be a negative impact when product becomes inexpensive.
    - Bring attractive offers, where discounts does not harm the profit margin.
    - Keep employees mentally healthy, so you can get the best out of them.
    - Take some financial risks, which might yield you the best returns.
    - Filter out unnecessary supply chain barriers.
    - Do not forget your **USP** (Unique Selling Proposition), in search of the newer products.

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3) What are the cultural differences between Service Inc. and Product Inc. that you think is a challenge for successful scrum implementation that would satisfy Product Inc.?

Culturally Service Inc. and Product Inc. are poles apart,the cultural differences between the service and product Inc that would have

satisfies the Product Inc due to following reasons:

- Product Inc. is a flat organization i.e is relatively newer, and is used among many startups, wherein there are usually no job titles ,seniority , with open offices, where engineers and managers including the vice-president share open cubicles, which in turn would help establish better communication between the engineers . Open spaces with couches, libraries, and even coffee bars foster more creativity and bring workers together.
- A flat organizational structure limits the levels of hierarchy so that members of the staff and members of management have closer interactions. This helps promote more accountability and professional growth within the company.On the contrary, in Service Inc.., one can make out the seniority of a manager in the organization by the size of his desk and room that he has been allocated.
- In Service Inc., with closed off cubicles leave employees isolated and could create division in your team, which has a direct impact on company drive and morale.

- Service organizations typically have fewer distinct job roles , looser boundaries between roles and a decentralized structure, employees of service organizations can sometimes find themselves reporting to several different supervisors with different expectations and priorities.
- All these amenities/features which the product Inc were consisting in their Inc , are not a part of Services Inc , had these flaws been overcome by the service Inc then probably there would have stood a chance that they would satisfy the Product Inc.

This assignment can be done by making use of either Word or Google Docs or PowerPoint or Google Slides. Submit your assignment in a PDF format.

The task is to be completed in teams of five.

TASK – 2: AGILE & SCRUM

Your team has been delegated with the task of **developing an ecommerce website**. Your team has to follow Agile methodologies to finish and launch the initial version of the website. As a part of the Scrum activities, Sprint Pre Planning and Planning meetings are held.

Your team's lab task is to **identify the requirements of the stakeholders and prioritize them**. **Scope for three 4 week Sprints** must be decided. User stories as a **product backlog** must be prepared. **Roadmap** must be prepared. The features of the website to be worked on must be decided for each Sprint. **Releases** at the end of each Sprint must be decided. Everything must be documented as a **Burndown chart**.

All Sprint details and requirements must be clearly mentioned in the document you submit. You can make use of timelines or similar diagrammatic elements.

Each team is allowed to pick the nuances of what the e-commerce website sells and what features the website provides the users. A happy brainstorming session to all teams! :)

Submit your document as a PDF.

The task is to be completed in teams of five.

TASK – 3: REQUIREMENTS ENGINEERING

The university student registration system is unable to cope with the high volume of telephone calls received at registration time. An **Online Student Registration System** needs to be developed. Perform a system investigation and analyze the system to determine the requirements (operational, functional, hardware, software, input, process, output, etc.) for such a system. **Each requirement should be numerically itemized. The requirements should be analyzed using the Fish bone diagram. Prepare a Use Case diagram for the Online Student Registration System.**

Follow the SRS template that has been taught and mentioned in the lectures and submit a PDF document.

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The task is to be completed individually.

TASK – 4: REQUIREMENTS ENGINEERING

Your team is **developing an application that helps ease the lives of University students**. Some of the problems you could tackle are – Acquiring quality study materials, Time management, Health & Lifestyle, Budgets, Career guidance etc.

Each team's lab task is to conduct a **feasibility study** for the problems they want to solve, **elicit and analyze** the requirements (make use of the Fish bone diagram), **prepare a SRS** using the template given in the lecture slides and eventually incorporate **changes to the requirements** by following the Requirement Change Process.

Teams can make use of the Use Case diagram and the Requirements Traceability Matrix for brownie points!

Starting with the feasibility study up until the changes in requirements, everything must be documented and submitted in a PDF format.

Students are encouraged to brainstorm and come up with more problems they want to solve rather than sticking to the problems given in this document! :)

The task is to be completed in teams of five.