**Section A – Management summary**

**A1 Summary of Lizzie’s Leather Belts**

Lizzie’s Leather Belts is a medium-sized company that has been around for 10 years and sells more than 50 different types of leather belts. Now they want to expand their business by offering leather belts to customers through a website and must be developed in 3 months from now.

The Managing Director feels frustrated with issues related to previous traditional “Waterfall” projects. She decided that Lizzie Leather Belt would develop her site using the concept of SCRUM and Agile.

**A2 SCRUM with Agile concepts is appropriate for Lizzie’s Leather Belts project**

Based on the scenario, we can see that the Managing Director feels dissatisfied with the issues of the traditional "Waterfall" model in previous projects, especially the lack of support for changing requirements.

Scrum is suitable for developing Lizzie's Leather Belts project because Scrum is an Agile-based software development process, Scrum is highly adaptable so it accepts change. Therefore, the Managing Director will have no difficulty changing requirements. throughout the project implementation process. Not only that, Scrum also reduces the risk of building products by helping Clear business objectives.The Managing Director can create a product backlog, a list of requirements that she wants. And the development team will know what features the project will have and at the beginning of each sprint will have sprint planning, The Managing Director will clarify her goals, thereby minimizing the misunderstanding of ideas and responding correctly. with project expectations. Scrum optimizes the development team's efficiency and efforts, thanks to Executive support, help team better at the Retrospective. And especially, Scrum supports increase User involvement, The Managing Director can participate in sprint planning and sprint review. She can understand the input and output of the product to ensure the project meets the goals they set at each stage of project development.

**A2 Advantages/ Disadvantages of Scrum**

**Advantages of Scrum:**

* **Limit risks**

By splitting and limiting the tasks performed during each Sprint, Scrum creates a test and adaptive loop. Thereby, the project will be completely failed after a long time due to the completion of all the requirements that the product owner cannot monitor the results of each process. For Scrum, at every Sprint, the Scrum Team will deliver an incremental product. And so that the Product Owner can check and evaluate feedback, thereby avoiding risks. For example for this strong point of Scrum, The Managing Director can monitor the tasks that will be assigned after each review meeting at the end of a sprint. Thereby, she can know which functions have not been implemented, the problems that previous sprint encountered and asked the development team to correct them to meet the requirements to avoid risks later.

* **Make changes easily**

Because the project is divided into small, separate, independent of each other, changes are made very easily, at any stage of the project. For example, when applying waterfall to the payment function of products in the cart. Initially, The managing director did not have requirement to modify the cart, after completing the payment function, it was not possible to add a new requirement to modify the shopping cart, and it have to implement the next requirement that the waterfall plan was set up. For sprints, before the start of a new sprint, the requirements can be changed. Before starting a new sprint, the managing director has requirement to allow card modify and it can be added before starting a new sprint. Therefore, before performing the payment function, the customer can modify the shopping cart, meeting the requirement and satisfied requirements of the managing director.

* **Increase customer satisfaction**

Scrum provides customers with transparency about the progress of products, problems, and barriers, and so on and accepts change as needed. It is these advantages that make customers feel more satisfied. For example, the Scrum team will commit to the Management Director that after each sprint will provide high-quality sprint backlog functionality instead of just working. Because the Scrum team expects the Management Director to participate in the project instead of just seeing the end result. Participation in the project can help the Management Director understand the time, the problems that the project encounters, and make changes, providing the best quality for the product.

* **Create a better quality product**

Compared to the projects that are done to accomplish a certain goal, the Scrum provides a framework for continuous feedback, change, and error detection to ensure quality. as high as possible. For example, combining daily testing and product owner feedback in the development process helps the Scrum team quickly identify problems and improve better or daily meetings to help the team identify problems or thread then solve them quickly.

**Disadvantages of Scrum:**

* **Scrum master problem**

This is one of the three main roles of Scrum. The role of the Scrum master is to ensure that the sprints are completed in accordance with the Scrum process and to help the development team members solve problems and obstacles when necessary. Therefore, if the Scrum Master is an inexperienced person that can make the project difficult. In addition to trying to control the team, it can also lead to project failure. For example, Lizzie’s Leather Belts applies the Scrum model to project development. But in the development team, there are a few members who do not know Scrum. If the Scrum master is not knowledgeable then how can he become a Scrum instructor, instructor, implementer, and protector? Not only that, if the inexperienced Scrum master does not know how to plan the implementation of Scrum for the project of Lizzie's Leather Belts, but there are also no daily meetings to know the work progress of the members. , are unable to solve the problems they are facing, resulting in a lengthy workflow and dissatisfaction with the wishes of customers.

* **Member in Scrum team**

The absence, irresponsibility of a team member can damage the progress of the entire project. Project success can be risky if one team member does not participate or does his work more slowly than others.

* **Inaccuracy in defining task**

Project costs can increase and project completion time can be extended if tasks are not clearly defined. Because defining tasks is unclear, planning becomes difficult and sprints can take longer than originally planned.

* **No control over the scope of development**

The cause of this problem is the lack of agreement on the project end date. Because there is no project completion date, customers will continue to request new functionality to be delivered.

* **Knowledge of Agile Scrum**

Although the information about Scrum is very clear and detailed at all stages. But Scrum is often the method for those who are experienced and highly qualified. Inexperienced people will make Scrum application projects face risks of both time and product quality. As mentioned above, the Scrum leader and member are also a crucial part of the success of the team so the lack of knowledge and experience of the team will bring a very high risk when applying Scrum.

**Section B – High level requirements analysis and MoSCoW prioritisation**

**B1 High level requirements analysis**

High Level Requirements are very general Requirements and represent the goals from the customer. High Level Requirement helps us visualize the development framework and understand customer expectations.

**B1.1 Identify inappropriate High Level Requirement**

Based on the " Base lined list of requirements for the Web site " table, we can see that the number of requirements made is too much and there should be no priority between requirements. In order to meet product development on time and to meet the criteria for 'high requirements', we need to identify inapproriate high level requirements. Therefore, there are some requirements that are not suitable for high-level requirements:

* **Requirement number four, online transactions to be secure so that our customers feel safe by Finance Director.**

This is not a high level requirement because it does not describe what the system can do, it only describes online transactions should ensure safety criteria. Without this requirement, the online transactions still work, this requirement is added to ensure this functionality is improved more safely.

* **Requirement number five, ensured that the site is Data Protection Act safe by Managing Director**

This is not a high-level requirement. This requirement does not describe the behavior or what the system can do, it only requires the site to comply with the Data Protection Act to avoid a penalty of hundreds of thousands of pounds. This requirement is to ensure the system is compliant with the law and must be secure. Without this requirement, the website can work without any functional issues.

* **Requirement number fourteen, belts gift wrapped and sent to an address other that than the customer’s address.**

This is not a high-level requirement. Adding this feature will make purchasing and ordering functions more cumbersome at the present time. We can use this requirement to improve service quality and system development in the future.

* **Requirement number fifteen, Discount belts for students.**

The discount on belts is common to all types of customers. Discounting belts for students may be a good idea but not necessary right now because it is just an extension of the product discount, we can develop it at a later stage.

* **Requirement number seventeen, daily emails to let customers know the status of their order.**

Receiving an email with the same content can make customers feel uncomfortable and feel this function is not friendly. This requirement can be helpful if the customer needs to monitor the status of their order regularly and it will be extremely troublesome for them.

**B1.2 High level requirement that require for building the website**

1. **Allow customer to modify their shopping cart**

This requirement gives customers the convenience, they are free to Change the quantity of products, remove unnecessary products to the cart, etc. They are free to choose or change everything at their own discretion. The better the interaction between customers and the system, the more they will attract new customers and keep old customers.

1. **Accept all forms of payment.**

This requirement should not be missed because payment is an important part of buying and selling products. In addition, it also offers customers a variety of payment options that will make customers feel more comfortable than having to use the default payment methods or payment methods that They have never used.

1. **Allow customers to choose whether or not they are sent marketing information.**

The comfort and perception of customers for the system is extremely important. This requirement will be useful to customers who need to monitor and purchase Lizzie’s Leather Belts products regularly, and it will be profitable for the company. For those customers who don't need to shop often at Lizzie’s Leather Belts, this requirement will make them feel annoyed. Allowing customers to choose to receive or not receive marketing information will make customers feel comfortable about their shopping needs and capture their information.

1. **Check delivery addresses**

This requirement will help the warehouse operator to conveniently and quickly manage the bulk delivery. Delayed or wrong delivery will give customers a bad view of Lizzie’s Leather Belts.

1. **Allow Customer to change their account details**

This requirement can help customers update their latest information such as phone number, address, personal information, etc. In addition, it also helps us to provide customers with the most accurate and effective service such as emailing events, announcing orders, delivering goods to customers at the address in the email, and bringing Many more utilities in the future.

1. **Create Discount page**

Discount page will be an innovative idea for the system, it helps attract customers and give them more choices. Most customers will visit the discount page to track deals and search for a product that is more affordable.

1. **Return products via the website**

It is a common problem to return products when products are problematic. Therefore, the support of returning products through the website will bring customers more convenience and faster instead of having to go through lengthy and time-consuming procedures.

1. **Monthly report showing the percentage of belts that have been sold via the Web site**

This is an important high-level requirement, it helps the Managing Director can manage the number of products sold, track sales and profit statistics of each month. In addition, it can help the Managing Director easily observe and set goals for each month.

**B2 Using MoSCoW to determine the priority of the requirements**

**B2.1 Update High-level requirement list.**

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Requirements** | **Priority** | **Days** |
| **1** | Monthly report showing the percentage of belts that have been sold via the Web site | Must have | 3 |
| **2** | Allow customer to modify their shopping cart | Must have | 5 |
| **3** | Allow Customer to change their account details | Must have | 3 |
| **4** | Accept all forms of payment. | Should have | 5 |
| **5** | Check delivery addresses | Should have | 3 |
| **6** | Create Discount page | Should have | 3 |
| **7** | Return products via the website | Sould have | 4 |
| **8** | Allow customers to choose whether or not they are sent marketing information. | Could have | 2 |

**B2.2 Explaining for setting priorities**

**Requirement:** Monthly report showing the percentage of belts that have been sold via the Web site

**Priority:** Must have

**Explain**: This is a "Must have" requirement because, it helps the Managing Director to manage the amount of product sales. In addition, she can use it to compare monthly sales, thus creating an appropriate business campaign. Not only that, but she can also compare the profits between selling online through the website and selling directly at stores to find service issues and improve better. For example, when buying products online via the website, we can see that customers can not be consulted as well as when buying at the store and she can offer the solution is to add chat function.

**Requirement**: Allow customer to modify their shopping cart

**Priority:** Must have

**Explain:** This is a "Must have" requirement during the development of the Lizzie’s Leather Belts website. The shopping cart feature is a popular feature that makes it easy for customers to save items that they love to be able to buy immediately or in the future, most sales websites must have. Allowing customers to modify their shopping carts gives them the convenience of adding / removing quantities of products or products quickly. For example, when a customer wants to buy a red leather belt, but they accidentally choose a blue leather belt, and when checking the shopping cart, they see two belts. By allowing customers to modify their shopping carts, they can remove the blue leather belts instead of having to refresh the shopping cart and select it again.

**Requirement:** Allow Customer to change their account details

**Priority:** Must have

**Explain:** This is an important "must have" requirement. Because, it helps the system to update the latest information about them as well as customers can provide their most accurate information to the system. This requirement is the basis for future expansion requirements such as the delivery function with the address provided by the customer from the beginning, online payment, the provision of email marketing information provided by them, etc.

**Requirement:** Accept all forms of payment.

**Priority:** Should have

**Explain:** As an online sales website, this requirement is very important. Accepting all forms of payment is a “should have” requirement, it makes our website more convenient and diverse. But if we can not apply all forms of payment on the website, it does not affect the website, we can still pay by forms such as payment via e-wallet or old forms such as payment in cash on delivery.

**Requirement:** Check delivery address

**Priority:** Should have

**Explain:** This is a "Should have" requirement for developing Lizzie’s Leather Belts sales site. This requirement makes deliveries faster and more accurate. Without this requirement, deliveries in one delivery may be slower. But deliveries can still be completed without this requirement.

**Requirement**: Create Discount page

**Priority**: Should have

**Explain**: This requirement is required for the Lizzie’s Leather Belts website. With the discount page, customers can track discounted products more conveniently and quickly. Without this requirement, the site can still function normally, but providing the customer with the most accurate discount information can increase the experience for the customer and the quality of the site.

**Requirement:** Return products via the website

**Priority:** Should have

**Explain:** This is a “Should have” requirement for Lizzie’s Leather Belts website. Customers will need to use this feature to assist them in returning the problematic products as quickly as possible with the most accurate information from them. But without this feature, customers can still return products by calling customer support directly and answering questions from them. Adding this feature will help Lizzie’s Leather Belts website provide better services and provide a better customer experience.

**Requirement:** Allow customers to choose whether or not they are sent marketing information.

**Priority:** Could have

**Explain:** We can develop this feature when we have time or to the next sprint. Because this requirement does not affect the website's operation, it only allows customers to choose whether or not to provide marketing information via email to customers. Also, problems with buying, selling, returning products, etc. are not affected by this request. So this feature can be developed when there is a lot of time.