

Project Management: case study of Vintner Antiques

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Overview

The case study to be discussed in this analysis is based on the Vintner Antiques. The main objective of Vintners Antiques is to complete a project within a defined budget and time. Indeed, the scope consists for the project team to complete efficiently the project management using tools which will ensure its success in the future. So, as a team manager, we are going with the support team members to help to reach objectives and goals of the project.

In this specific case, the Vintner Antiques, owning a traditional high street shop in Shirley, have had an offer from Tesco local to buy it. And in this way, they want to move on their warehouse in Sparkill and run a business online like "Salvage Hunters" tv program.

As we know project management helps project managers and team managers to respond some questions regarding the business problem, the budget available, the timelines, the benefits expected and the deadlines to achieve it, and the people needed to involve in the project and their responsibilities and roles (Roberts, 2011).

In this project management, we will use the waterfall model to explain its importance on running a project. As a software development process and created by Winston W. Royce in a paper published in 1970, the waterfall model represents a progression of steps throughout what is called software development life cycle (SDLC). According to Winston (1970) the waterfall model is considered as a breakdown of project activities with different phases, where each phase depends on the previous one. In one word, the outcome of one phase acts as the input for the next phase. And the sequential phases can be understood as following: first, system and software requirements, then the system design where the requirements specifications are studied and helps in defining the architecture.

Implementation is the third phase with inputs from the system design and developed in small programs called units. Integration and testing allow the entire systems to be tested for failures and faults. After development of system give possibility to deploy the product in the customer environment or release into the market. Finally, maintenance allows to correct issues coming up in the client environment.

However, if the waterfall model presents some advantages like for example clearly defined stages, well documented and processed phases..., we noticed some criticisms presenting its disadvantages such as high amounts of risk and uncertainty, no suitability for projects where

requirements are at a moderate to high risk of change, and sometimes when adjusting scope during the life cycle.

1- Project roles and responsibilities

To have a successful project, planning is important but people as project team members are also needed. Talented and collaborative team members help to move forward projects, but it is necessary to determine who are those members and what roles they play. Those members are accountable and must respond for the success of the project with specific management responsibilities. And groups in the project could be diverse or antagonistic, however healthy discussions are better with varied perspectives.

In this sense, a project needs first a project manager playing a primary role and responsible for its successful completion. He must ensure the project done on time and under the established budget, by managing relationships with contributors and stakeholders, recruiting staff and assigning tasks to the

project team members. In this case, as a student in project management I have the role to establish a project schedule and determine each phase and methodology used on the project. Doreen Vintner, accountant and running the business will be affected the role of project sponsor. She has to work closely with the project manager and helps to resolve conflicts, to approve the budget and ensure availability of resources, and to communicate the project goals through the organisation.

As a project team member, Suha, handling the customer service is going to work on various phases of the project and can contribute to overall project objectives, provides expertise, works with users to determine and meet business needs, and also documents the process.

And Omar, as a warehouse and repairman will take a great place on a project team by completing individual deliverables with the skill needed in warehouse jobs and repairs. Omar has all technical skills, problem-solving skills, ability skills and organisational skills to contribute on the project objectives consisting on moving to the new place.

2- Project Management triangle

Used since 1950 to ameliorate the project quality, iron triangle management called also the triple constraint or flexibility matrix, recognises three key constraints: cost, time and scope.

Time or schedule is at the top of the model and refers to the amount of time available to complete the project. And tight time could increase costs and reduce scope. Time management processes include: plan schedule management, define activities, sequence

activities, estimate activity resources, estimate activity durations, develop schedule and control schedule.

Cost refers to the budgeted amount available for the project and can include both materials and people, and sometimes are fixed or variable, and can be adjusted to meet needs. So, any project management uses cost process areas by doing cost estimating, cost budgeting and cost control, and project management cost estimating tools by using cost of similar project to determine the cost of the current project.

And scope including the task necessary to achieve the project's goal.

And at the end, with those constraints, quality of the work is dependant of the budget, deadlines and scope. And any changes in one constraint necessitate changes in others to reach better quality. But according to Shenhar (1997) the project management triangle is insufficient as a model of project success because sometimes it does not take in account the impact on stakeholders, learning and user satisfaction.

3- Scope of the project

As we know the scope of a project allows to determine tasks and functions, deadlines and costs, projects goals and features needed to be achieved and make the work done and delivered. So, the process requirements must be well defined and achievable, and the correct stakeholders involved to avoid confusion when the project goes on. Also, limitations must be identified in term of budget and in project timeline. And all the problems described by the stakeholders must be prioritised within a technique called Heagney Chevron technique through a software like for example TRELLO or Trello board which is a visual tool for organising and prioritising tasks to share with others.

In this case study of Vintner's Family, Heagney Chevron technique will give us the possibility to describe in a white board called Kanban in Japanese, all the problems linked to the transfer and settlement in the new warehouse. Those problems concern the needs regarding the execution of the project or user stories which are considered as expressed requirements allowing to identify the user goals and the project value. That is why, Wake (2003) through his INVEST model, provides guidance on creating effective user stories: first, by being independent from others, then by being negotiable, small and testable and by being valuable that the time frame will be clear to estimate. This means, a good-written user story must be clear, complete and concise.

In this case study, all members of the steering group have to identify and describe problems linked to the project and regarding their position in the project. User stories help to create a requirement on what you want and why in three steps: As a person, I want a thing, because of a reason. In this project for example they want lot of things like electricity, phone and internet, gas and heating, insurance, IT support team, removal van, customer service...And for example, because they need more space in the new warehouse, Omar as a warehouse manager want a forklift to handle, heavy items and bulky stock onto shelves.

Prioritising the requirements is the next step by classifying them for their importance and the availability of the resources. And by using the TRELLO software which is a collaboration tool organising project into board with different columns and allowing to move the tasks between them. It is used for personal and business purposes (trello.com). And user stories are to be moved into the lanes with correct priority: in must, regarding everything that must be done (musts). In this column we put all the stories or features that must be included in the project such as electricity, phone and internet, gas and heating, insurance... Then in want, for everything that should be done or should be not (wants). This column represents all the stories or features that we want to be included in the project like for example customer service, security system, marketing...Finally, in nice, for everything not important but it can be something more. And the column will have the stories that would be nice to have in the completed project like for example in this specific case, an IT support team, a stock audit, a forklift....

4- Time estimations of the project

For any project management, we need to know how many hours, days, months or years it will take to complete the different tasks. Consequently, to evaluate the volume of time for a project we need to identify and create a list of tasks and develop a detailed breakdown structure, to know the time needed through the individual estimates in purpose to get the total necessary to complete the project. And this time estimation must be a set realistic project expectation, must foresee risks, organise processes and has a focus on priorities. This allows to avoid delays, because inefficient time estimation can lead to a complete project failure, or sometimes delays are caused by many challenges to determine deadlines, or due to actions or environmental factors or third parties out of direct control. Or, in many situations, delays are due for changes in project scope or poor initial project plans. So, it is important in a project to estimate time accurately and gathering all the data needed to make appropriate forecasts. Indeed, to implement a project, time estimation is considered as one of the most important steps to complete after having the detailed list of all the tasks to achieve. In this moment of the project, the project manager with all the team members have to make sure they have allowed time for each task and how long it will take, including project

administration management, meetings, necessary procedures, training..., but also, including some factors which may lengthen the time like for example accidents and emergency, holidays and sickness, interruptions by customers or suppliers, quality control rejections etc...

In this case study we are going to create a Gantt chart to work out the order which will complete the tasks in and who could do them. Indeed, after each user story has been estimated and prioritised, we need to know how long it will take to complete the project in a process called critical path. But first of all, what is a Gantt chart used for the project schedule?

Invented by Henry Gantt, the Gantt chart is considered as a type of bar chart illustrating the project timeline and listing the tasks to do on the vertical axis and duration of each activity on horizontal axis. The length of the bar is proportional to the time necessary to cover the tasks. Gantt chart allows to schedule and manage tasks and resources in a project and shows the timeline, including completed work.

It aids also the project manager to communicate on plans, project status and to ensure that the project remains on the good way (Wallace, 1922), and useful to identify tasks which cannot be done until other tasks are complete and those executed in parallel. That is what we call dependant user stories and independent user stories. To create a chart, individual tasks are required, an estimate of the duration of each activity and their dependency one on another. This gives to show the tasks in sequential order and task dependencies, but also to determine and allocate resources, to anticipate the risks and problems...

Applying the Gantt chart in this specific case of the Vintner Antiques, we have in the horizontal axis, the duration of each task, and regarding first the "Plan Start" which is the date we want to begin a requirement identified in the user stories, then the "Plan Duration" which will show us how time we need to complete the task. "Actual Start" means exactly the real start of the task which will have an impact on "Actual Duration". At the end, in this horizontal axis, "Percent Complete" shows at what percentage is executed such task and allow to follow its progression and by the way the overall project.

In the vertical axis, we have all the tasks and activities needed to be done during the process of the project. It consists in this case, to implement electricity, phone and internet in the new warehouse. But also, to have a removal van to move items from Shirley street, to fix gas and heating, IT support team to diagnose, repair and maintain the running of the computer systems, marketing throughout internet and leaflet distribution. Security system to give more protection around the warehouse, customer service to do more advertising, stock audit and labelling are also important activities and tasks to schedule in the Gantt chart to estimate the necessary timeline to move from Shirley street to Sparkill and complete the project.

5- Cost estimations of the project

After working out how long the project is going to take in term of time, we are going to think in this part of the case study how much it will cost us. It is called project management costs and involve all the expenses covering the tasks concerning the planning, the execution, the control and the finishing of such project. And to be efficient, costs management are correlated to several factors such as: project costs which are all the funds needed to cover and complete a work project and include direct costs necessary for the completion of the project, and indirect costs which are part of individual project costs. Also, project budget, considered as the total amount of money for the execution of the project in a specific deadline, and depending on the cost of the project cost control including all expenses related on equipment, materials, work hours etc... Project budget may be incremental when it is based on the budget and time estimates of previous similar project, or may be activity-based when it is based on the company's ideal revenue. Or value proposition when it is based on value to project. And at the end zero-based when it is based on justification of items across the business. Then the project cost estimates allowing to predict the cost, quantity and price of everything needed to finish the project. It must be precise taking in account resources and time, be accurate by estimating the time needed and having all the requirements understood to avoid project misunderstandings.

In fact, all the decisions related to the project are linked to the estimated project budget. (Doloi, 2011). And if the project costs do not exceed the budget, the project will be successful in its future completion.

In this case study, we need to list all the people intervening in the project like Omar, Suha, Doreen, Denis etc..., their respective hourly rates, the physical resources needed, the time needed to finish the project and at the end, calculate the final price including all these numbers.

Conclusion

During all the process to complete the project, and as a project manager, responsible to accomplish the objectives defined by Vintner family, with the finality to move from Shirley street to the new warehouse in sparkill, my role consisted to help in defining the project. But also, to collect requirements from business units or users and to test solutions in purpose to validate objectives. In fact, my role was to communicate and define clear, attainable and useful objectives related to the project, and to recruit and procure workforce, to gather information needed, materials and technology wanted to finish in good way the project objectives. Understanding the constraints, is another role which helps to manage costs, scope, quality and time.

According to Russell (2011), the project manager has to help other team members to perform in their roles. So, the other role is to be accountable for ensuring the execution of each member's role with support and empowerment. Problems encountered with the budget, quality control, scheduling are also the responsibility of the project manager.

In this specific case, my main roles were to develop the plans on how to move in the new warehouse, to manage the project stakeholders, to manage the communication and the project team, to identify and sort out all the risks linked to the project, to define the schedule by managing the time needed to complete the different tasks, to manage the budget by determining the costs of every single activity, to manage the conflicts and the final delivery of the project.

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