



Project Management for the Implementation of a Software: Case Study Debt Collection Software System

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Abstract

Project management has become an essential element across all industrial sectors in the successful delivery of projects. Regardless of the industrial sector or size of project, project management methodologies (PMM) can be applied to improve the probability of meeting the project goals. This paper will discuss about how to manage the whole project from the idea to its implementation for the creation of software on debt management. It will show the way the work was planned until the end of the product, to give the customer a product of the highest quality. The current situation of how debt management companies work is very difficult, unproductive and day by day it was becoming a serious problem. Everything was born from the accumulated work experiences over the years and the current state of the Albanian market. Information management in Albanian companies is done through Excel files, where information is disorganized, insecure and can be lost from time to time due to technical problems. The current situation on debt management activity is very backward compared to technological innovation. Current ways of working are certainly associated with negative economic consequences for debt collection companies and major financial risks. In the current working conditions, there was a clear lack of information efficiency, which made the performance of debt collection agents extremely low. In this situation, studying the Albanian market and the ever-increasing demands of this type of activity, it was seen as necessary to create software on management. of debts.

Keywords: Project Management, Software, Technology, Innovation, Efficiency

1. Introduction

The project chosen to be realized is the project for the realization of the debt management software. It is a project that will be realized according to the project management structure. The project is the result of an identified problem or situation which poses a risk or opportunity to our organization. It was born due to the current situation. The current situation on debt management activity is very backward compared to technological innovation. Current ways of working are certainly associated with negative economic consequences for debt collection companies and major financial risks. [1] Providing enough information to evaluate each possible solution, reflecting on any team suggestions, and seemingly trivial details will be a powerful basis for comparing solutions and evaluating the best solution. This process requires constant attention and care in every detail and logical development of the evaluation processes of indicators, impacts and real possibilities of their implementation. It should be noted that evaluation mechanisms and criteria should be unique to all alternatives. All the activities of a project converge towards the goal. Goal can mean project solution. The goals of the project are to achieve the final product by meeting all market demands, and in this case the creation of software on debt management to give the customer a product of the highest quality and to offer users a more enjoyable experience. [1] Project management methodology is a strictly defined combination on practices regarding logic, methods and processes that

determine how best to plan, develop and control a project along the continuous process of its implementation and successful completion.

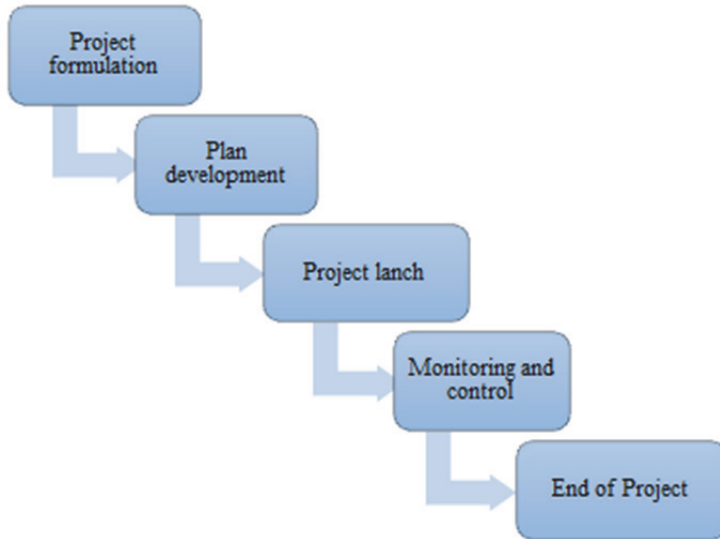


Figure 1: Phases of the process of the project

All the resources needed to reach the final product are defined.

The budged needed to carry out the project. Human resources (how many people are needed, who should do the work, when should the work be done, for how long are they needed, etc.)

Also, what equipment is needed to perform the tasks. Resources can be defined even without the project manager, but it would be preferable for the project manager to have been selected earlier so that he / she also participates in determining the resources of the project.

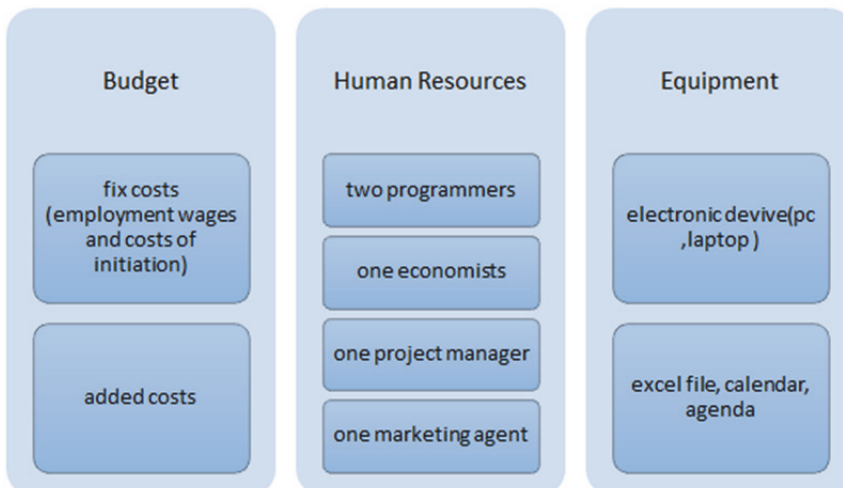


Figure 2: Resources needed

2. Preparing the Objectives

Project management has become an essential element across all industrial sectors in the successful delivery of projects. Project management methodologies (PMM) can be applied regardless of the industrial sector or size of project, and they can improve the probability of meeting the project goals. [2] The enterprise must provide customers with solutions to problems they have to minimize their costs by offering a quality product. Technology has developed a lot in recent years, but many enterprises have a very difficult approach to technology without even knowing the benefits that can benefit from it. Part of the mission is to offer simple solutions at minimal prices to solve problems which cost a lot of money. Many companies need to change the way they work to increase their performance and move towards success.

The purpose of this project is to increase the performance of agents operating in the field of debt collection. Replacing Excel, paper, calendar (agenda), mobile with a single application making the agent focus only on work to contact the cases he has to work with. Part of the purpose is also to provide information. Information can be lost due to human error or technical problems. Various statistics or analyzes can be compiled on which a well-organized work plan can be developed. Many enterprises currently contact cases via SMS via a mobile phone wasting terribly time finding contacts or writing SMS. This is wasted time which should be turned into productive time. Some enterprises use external services for mass SMS sending which has significant costs for the budget and volume of SMS sent to these companies. These costs need to be minimized in detail. Tracking the activity of system users is used in order to reduce negligence at work by employees.

The objectives here for the system are:

- Easy to use and performable in performing long procedures
- Automatic and secure backups of information
- Preservation of history for each case
- Compilation of reports
- Compilation of analyzes and statistics
- Send SMS at low cost and everything is done by the system automatically and not manually by the agent.
- Tracking the activity of system users to reduce negligence at work by employees.
- Managing different workgroups and managing working hours

3. Project Evaluation

The construction of the project certainly requires the evaluation of all the factors that affect its evaluation. The purpose of the project is to increase the performance of agents operating in the field of debt collection. Replacing Excel, paper, calendar (agenda), mobile with a single application making the agent focus only on work to contact the cases he has to work with. Part of the purpose is also to provide information. Information can be lost due to human error or technical problems. Record keeping, through which reports can be issued to verify agents' performance in a timely manner. Various statistics or analyzes can be compiled on which a well-organized work plan can be developed. In many companies currently contact cases via SMS via a mobile phone wasting terribly great time finding contacts or writing SMS. This is wasted time which should be turned into productive time. Some companies use external services for mass SMS sending which has significant costs for the budget and volume of SMS sent to these companies. These costs need to be minimized in detail. Tracking the activity of system users to reduce negligence at work by employees. Management of different working groups and management of working hours.

3.1 Factors of Production

Experience curve - indicates the time desired until the software is up and running. The time required from product design to implementation is one year.

Demand for energy and equipment- Human resources have been the basic requirements of this project. The ability and capacity of each member has been a key point for successfully meeting the objective. Necessary devices are electronic devices like laptop, pc, and work plan.

Process safety is closely related to work progress. Appreciating the fact that the work plan is well organized and human resources are more than confident in their capabilities and achieving the ultimate goal. We can say that security is more balanced.

Changes in production cost per unit of output. The only change that was noted is an increase in working hours as a

result of last-minute changes according to the requirements of the potential customer.

The raw materials used for this service are electronic equipment and human resources. Their presence has been sufficient for the successful completion of the project.

Changes in output quality - Minor changes at customer request.

3.2 *Factors of Marketing*

Potential market size for output- A suitable market for our output is the Tirana area. Potential clients for the software are powerful companies such as: OSSHE, Commercial Banks, Debt collection companies. [2]

Time to gain market share- Short time not more than 6-months.

Impact on the existing product line- There is no impact because this will be the first software produced by an Albanian company.

Customer acceptance- Since the whole product realization project has been very close to the customer's requirements and its modeling and functionality has been done by experts in the field, customer acceptance will be positive and there will always be an increase in demand.

Estimated output time- This service is designed to operate for a long time because the need for this software is for a long period of time, this is related to the service that the latter provides.

3.3 *Financial Factors*

Profit, value in top of the investment- The profit of the company will be calculated on the basis of sales. But for each software implementation it is estimated that the profit will be 40% of the selling price.

Repayment Period- The repayment period is estimated at approximately 6 months.

Amount of investment required- The amount of investment required is the salary of members and basic work equipment.

3.4 *Personnel Factors*

Training and skills requirements- The project staff is highly qualified and does not need training.

Availability of qualified workforce required- Project members are people with experience and work experience of more than 2 years in their profession.

Changes in the size of the workforce- The project has not undergone any changes in the size of the workforce.

Requirements for group communication- Very good group communication skills.

4. **Benefits from the Software for Enterprises and Manufacturer**

Some benefits from the enterprises will be, the number of cases that are process in the same time. If an agent consumes 5 cases in the current working conditions with such an application the agent can consume 20 or more cases at the same time which is reflected in the increase of the company capacity or in the reduction of basic costs, thus the company can significantly reduce the number of agents for the same amount of work. Also maintaining history and issuing daily, weekly, and monthly reports, which helps the company make an effective work plan by detecting weaknesses and finding the fastest possible way to correct them. It brings information security by avoiding its loss or damage by technical or human problems. It reduces the time to perform lengthy procedures is accomplished using optimized algorithms in data processing. The enterprise database is kept online away from individuals and the data is never deleted but simply new data is created. Backups are made every night in other facilities for catastrophic cases. Every action performed by the agent for each case is stored in a database. We have standard reports which the system has implemented but others can be added based on specific customer requirements for a fee. Analyzes and statistics are implemented based on customer specifications and requirements for a fee. The client will have a panel in which he manages, books, and sends SMS to the contacts and groups of contacts that are in the system having the opportunity to filter them. Every action of the system user is stored in a database in log form. From login, logout, opening a case, inserting data, changing data, etc. Administration panel for creating / managing working groups and assigning agents to working groups and defining working hours in each group. [5]

Manufacturer Benefits of this system is related with economic profit based on potential customers. It brings technological innovation. It can expand in the market where it operates. Also, the opportunity to create a good name in

the market because of technological innovation that the application will bring. It can benefit from other projects and opportunities to expand the company and the market where it operates.

5. SWOT Analysis

5.1 Strength

Unique product - Since our software is the first Albanian product that will operate in the domestic market has the right potential to dominate the market. This is not only due to the unique type of product but also the market demand for this type of software is becoming inevitable.

High capacity- Significant increase of work capacity in factors such as:

Preservation of history for each case

Compilation of reports

Compilation of analyzes and statistics

SMS Send SMS at low cost and everything is done by the system automatically and not manually by the agent.

Tracking the activity of system users to reduce negligence at work by employees.

Management of different working groups and management of working hours for Team leaders and agents [4]

Technological innovation - The company must provide customers with solutions to problems they have to minimize their costs by offering a quality product. Technology has developed a lot in recent years, but many companies not only have not kept pace with the times but also have a very difficult approach to technology without even knowing the benefits that can benefit from it.

Economic Advantage - Part of the software's mission is to reduce costs. Many companies need to change the way they work to increase their performance and move towards success. So the implementation of the system on debt collection will lead to a significant reduction of fixed costs and increased economic profit.

Increase efficiency - The project aims to increase the performance of agents operating in the field of debt collection. Replacing Excel, paper, calendar (agenda), mobile with a single application making the agent focus only on work to contact the cases he has to work with and managing working hours for Team leaders and agents.

5.2 Weaknesses

Poor marketing campaign- Given that the very budget with which the whole project is built is very limited and too narrow, advertising has developed very little. Advertising will be carried out by agents based on direct contacts with the client. One of the basic marketing strategies that is expected to be followed is the pricing policy strategy.

Financial risk - Like any project, there is economic risk and fear of events that may negatively affect its performance. This risk is certainly focused on the client's expectations and how the software will be accepted by the client.

5.3 Opportunities

Relying on the right partners - If our customers remain satisfied with the use of our service, this is certainly considered a powerful impetus to move forward. Our customers are seen as a potential partner for further development of MAPI software.

Opportunity to expand in the market where we operate - Our software aims not only to own the area of Tirana but the entire national territory. After a few years it is intended to be implemented in neighboring countries such as Italy and Greece.

5.4 Threats

Customer Feedback- How the software itself will be received and how close it will be to the customer's expectations is certainly a threat to the future of the product.

Tax policy- A change in tax policy would have negative impacts on the company.

6. Estimation of the Duration of Activities

Now that we have completed the sequence of activities and identified the links between them and the order of completion, we can take it a step further by calculating the duration of the activities. Two methods are used to calculate the duration.

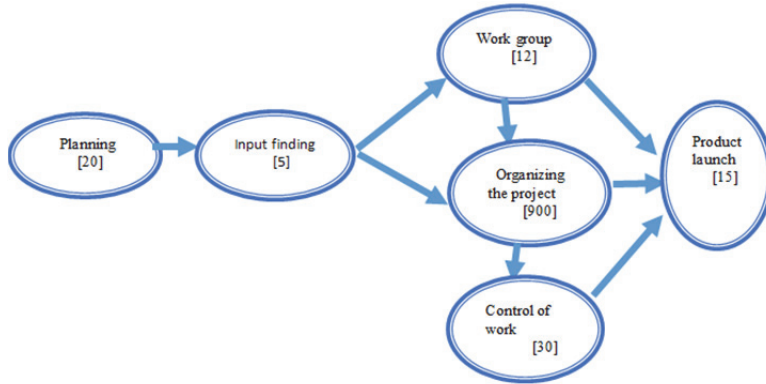


Figure 3: Total estimation of the activities

The first method consists in calculating the volume of activity in several working hours required to complete it, hours which are then added to the calculation of the total volume of the project. The second method consists in calculating the duration of an activity through a time window needed to complete it. The first method was chosen to estimate the duration.

Total project volume = 982 hours.

7. Problems Encountered during the Project

Below in the table are some problems encountered during the project. From the table we see that the threats that has impacted mostly the work are: change of completion date, changing market demands, changes in requirements.

Table 1: Problems encountered during the project

Problems encountered during the project			
Purpose of the project		Sceduling the project	Marketing
Misunderstanding of purpose	-	underestimation of duration	+4 unrealistic expectations of users
changing project objectives	-	late approval	- price change
the work is not precisely defined	-	unrealistic end date	- changing market demands
changes in requirements	+ 2	change of completion date	+4 decline in sales
		management review delays the project	- increase in sales
Materials		Resources	Organizational structure
resources and their validity	-	change of team members	- unclear roles and responsibilities
inability of suppliers	-	movement or freezing of funds	+ not delegation of power
improper safety of materials	-	unclear priorities	- truncated relationships between units
low quality	-	unclear costs and expenses	-1 lack of coordination - lack of communication
high prices of materials	-		
Personal		Interpersonal relationships	
holidays	-	performances	-1
matters of trust	-	productivity	-
family matters	-+ 1	interpersonal conflict	-
Conflict of Interest	-	growth and development	-

- The threat has not impacted our work; + The threat has impacted our work; +- The threat has little impact in our work

8. Conclusions and Discussions

The project arises from an identified problem or situation that poses a risk or opportunity to our organization. This project was born due to the current situation. The current situation of debt management activity is very backward compared to technological innovation. Current ways of working are certainly associated with negative economic consequences for debt collection companies and with great financial risks. It is a project that will be implemented according to the project management structure. The project will bring a new product to market and we will have to measure its potential market. This will require market research and the level of fulfillment by our product of customer requirements. The debt collection software project manager must of course meet a number of basic requirements. He / she should be responsible, with general knowledge about projects and technology and possess some important qualities for effective project management. For this project, based on the specifications, two programmers have been selected as human resources, an economist, a project manager and a marketing agent who will work with their maximum capacity. During the implementation of the project, one thinks about the work process starting with the planning, provision of raw materials, human resources, equipment, work organization, control system and marketing strategies to be followed. The control of the project is done to follow the progress. The two dimensions related to resource consumption are time and cost. During this study a SWOT analysis was made, which studies all the strengths, weaknesses, opportunities and threats that should be considered during the project but also in the future. Also at the end are presented the biggest problems encountered during the project by dividing them according to several groups, from purpose, scheduling, marketing, materials, resources, organizational structure, personal issues, interpersonal relationships. It was noted that the threats that most affected the work were related to the change of the completion date, the change of market demands, changes in the requirements, the purpose, the underestimation of the duration and less some others such as performance, costs and unclear costs, lack of coordination and communication.

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