Report on justification of the project

Business, Management

Business Case Analysis

Business case analysis

According to Remenyi and Sherwood-Smith, it is necessary that every IT investment is preceded with a comprehensive business case analysis which will summarize all important elements of the project proposal and will assist in the decision making process (Remenyi and sherwood-Smith, 2012). Following a structure suggested by the same authors, the following business case analysis is comprised of:

- Set of outcomes and clearly defined business objective

- Beneficiaries and stakeholders of the project

- Evaluation of project benefits

- Evaluation of project costs

- Evaluation of project risks

- Definition of the project (in comparison with existing theory applicable)

- Management commitment and approval (Remenyi and sherwood-Smith, 2012)

A list of set outcomes and a clearly defined business objective

The business objective of this project has been clearly identified as a specification, building, testing and implementation of the selected software and the associated infrastructure (PEP, 2010). In accordance with this, four separate outcomes can be distinguished, all related to the specific nature of the project's main objective. These include: a well defined project specification, development of the solution, quality assurance for the solution

and operational readiness. Taking into consideration the inter-dependencies of the project outcomes, they must all be achieved consequently, which is furthermore described with the following diagram:

This is aligned with the project phases as defined by the PMI project management methodology (PMBOK Guide, 20098).

A list of beneficiaries and stakeholders of the project

All IT related projects distinguish between three separate groups of stakeholders which include the sponsors/owners of the project, the IT professionals associated with the project and the financing and administration staff (Remenyi and Sherwood-Smith, 2012). In alignment with this, it may be stated that, although Bechtel is identified as a primary stakeholder of the project, there are other stakeholders and beneficiaries that need to be taken into consideration to ensure the project's success. Hence, the IT and administration staff of BMA are included in this list.

An evaluation of the benefits

As in most projects, and particularly in information system projects, the solution proposed by CSC offers a number of benefits to the client. These benefits can be identified and analyzed from several different perspectives, although, for the sake of clarity, only two such classifications have been chosen in this analysis.

The first one regards the project benefits from the aspect of tangibility, and hence, identifies two types of benefits: tangible and intangible (Shelly, Cashman and Rosenblatt, 2010). The tangible benefits help identify actual financial benefits that can be expressed through cost decrease and/or revenue increase. The proposed solution actually addresses both of these

situations. In other words, some of the tangible benefits are stated bellow:

- the new solution will decrease overtime, hence enabling decrease of expenses

- the new solution will improve the production, hence enabling increase of revenues

The intangible benefits have no direct impact on the costs or revenues. However, this does not mean that they are inexistent or unimportant. Some of these benefits include:

- User-friendly interface based on existing system to ensure employees familiarity and reduce need for adaptation or learning (this is ensured as CSC has already implemented projects for BMA and is knowledgeable about the preference and habits of the employees).

- User-friendly system that will ensure employees satisfaction, etc (Shelly, Cashman and Rosenblatt, 2010).

The second type of classification of the project benefits enables evaluation of the same which is conducted in three separate areas to ensure broader scope of understanding and project justification. These areas include the project feasibility, acceptability and suitability (Melton, Iles-Smith, Yates, 2008).

Feasibility of the project - CSC is ready and capable of providing any and all resources, including staff and knowledge, required for the completion of the project. This is demonstrated through the organizational structure proposed for the project which includes a Program Management Office and an Architectural/Engineering Office, with three separate teams allocated to each of the three project locations (PEP, 2010).

Acceptability of the project - CSC already has an extensive cooperation history with BMA, being their chosen provider of IT services and support for many years (PEP, 2010), and is familiar not only with the software and infrastructure that the company utilizes, but also with their procedures and operational methodology. This will ensure that the new solution is compatible with the existing systems of BMA and is user friendly, thus providing a high level of acceptability for the project beneficiaries.

Suitability of the project - An inclusion of an information management system is a prerogative for the sustainable management of all mining operations (Botin, 2009). This is why the implementation of the proposed information system is not only suitable, but also necessary, in order to ensure the functionality and sustainability of BMA's operations.

An evaluation of the costs

The costs associated with this project will be addressed in manner that will enable maximizing of the allocated resources utilization. Although a definite estimation of the cost cannot be created prior to the creation of the detailed functional specification (FS), still some guidelines can be given. Hence, CSC proposes that the costs follow the suggested program plan, and that costs are allocated primarily for the phases of specification, development and testing of the solution, as it is much more cost-effective for resources to be spent in these phases, rather than to make changes after the implementation of the solution (Schwalbe, 2011). This is further supported by a cost analysis on previous information projects that has shown an approximate distribution of costs in the following manner:

- 8% of the total costs for user needs identification

- 8% of the total costs for analysis and design

- 15% of the total costs for testing

- 67% of the total costs for maintenance (after implementation phase)

(Prakken, 2000).

These numbers indicate that more than two thirds of the total costs of the implementation of an IT project occur after the implementation phase, and many of those costs are not foreseen or planned for in the beginning of the project (Prakken, 2000). This is why a significant amount of resource will be allocated in the planning and testing phases, to ensure that the project is carried out and implemented within the given budget.

An evaluation of the risks

According to Remenyi, the major reasons that lead to failure of IT projects can be summarized in three categories being: late identification of issues, poor issue management and lack of issue tracking (Remenyi, 2007). The Program Execution Plan proposed by CSC identifies issues as either problems, changes or risks (PEP, 2010) and incorporates detailed management programs for handling each type. The inclusion of such programs (see Section 5 - Change Management, Sectyion 6 - Risk Management, and Section 7 - Issue management in the PEP document) will ensure that all three categories stated above will be minimized or diminished during the project implementation.

It is also important to emphasize that the inclusion of such programs will serve its purpose and achieve the expected minimization or diminishing of risks as it is not the risks themselves that influence the unsuccessful closure

or failure of an IT project, but it is rather the lack of adequate risk management skills (Sudhakar, 2010).

The definition of the project

The preceding evaluation would not have been possible without the project execution plan prepared by CSC. It is necessary to mention that the emphasis is placed upon the execution of the project (project execution plan), rather than on planning of the project (project management plan) due to the fact that CSC, as a result of previous projects and cooperation, recognizes BMA as an agile and changing environment. It is essentials that projects conducted or intended for such environment do not make crucial decisions during the phases of identification and planning, and instead use these phases as support for the critical decision making during the execution phase (Chin, 2004). This, however, must not be interpreted as minimization of the planning phase; instead CSC will focus on the planning but only as a support to the execution.

According to Sudhakar, the basic processes of every IT project are initiation, definition, planning, execution, monitoring and controlling and finally, closure (Sudhakar, 2010), which is in conformance with the project definition as set by the PMBOK Guide (Heldman, 2009). All of these phases have been addressed within the Project Execution Plan, although it is necessary that some plan areas are furthermore developed and modifying in cooperation with the client and according to its specific needs.

The Project Execution Plan also closely follows the latest trends and standards for project planning. According to Schwalbe, a project plan for an IT solution consists of scoping, scheduling, estimation of costs, quality and

risk management planning, communication planning, monitoring and controlling, and planning of tools and technologies (Schwalbe, 2011). All of these elements have been included into the Project Execution Plan for the project, with the exception of the cost estimate, which is to be conducted in more details after the Functional Specification (FS) of the project is fully developed.

All of the previously stated indicated the conformity of the proposed project with project management technology, which is important, as a great number of projects that have been deployed without the use of this methodology have not been completed with success. This is even more important to emphasize as IT related projects, and particularly software development projects have a significantly lower rate of success, as only about 34% of all such projects result in successful completion (Reynolds, 2009).

Rationale of the preferred solution

The rationale of the project, by definition, explains the logical principles or reasons that have led to a decision (Business Dictionary, 2012). The principles and reasons applied by CSC in the case of the Caval Ridge, Daunia and Peak Downs mines have been chosen and implemented with the specific purpose of creating a solution that will answer all the needs specified by the stakeholders of the project.

In other words, the solution proposed by CSC is designed with accordance to the latest technology and management standards available. It has been a result of excessive analysis and planning, during which all of the important and relevant areas of the project have been taken into consideration. The creation of the Project Execution Plan covers all of these areas in detail and

will enable project closure that will fall into the pre-defined scope, schedule and budget.

The main rationale behind the project therefore, is the use of methodologies, tools and standards that will ensure successful project completion in terms of achievement of project goals, or in other words, will ensure customer satisfaction.

Obtaining management commitment and approval

One of the greatest factors that can be perceived as an essentially critical risk to the successful implementation of an IT project is the lack of management commitment (Sumner, 2000). This is why it is crucial that this project should receive management commitment in all phases of the project starting from the project initiation to the project closure. Furthermore, in order to ensure the success of the project it is essential that the client's upper management agrees with and approves of all of the set project goals. This will ensure that the design of the solution corresponds fully to the set project goals, and will thus ensure their achievement at the end of the project. For this to be enabled, the management must be involved in every project phase, and through this involvement to demonstrate its dedication and commitment to the project.

Conclusion

The analysis of the business case of the software solution for the Caval Ridge, Daunia and Peak Downs mines as proposed by CSC leads to several conclusions. The most important of these concern the approach of CSC in the development of the project and the need for management commitment from

the client (both Bechtel and BMA).

In alignment with the latest standards related to the required technology and execution of projects, CSC has implemented the project management technology to the entire project, which enabled planning and analysis of all project's aspects. The use of such methodology will greatly enhance the probability of the project's success and its completion within set time and budget. It will also ensure that all of the requirements set by the stakeholders of the project have been met, and all of the project's goals have been achieved.

However, it is necessary to emphasize that although the used methodology offers some guarantees for the successful project completion, a serious dedication and commitment from the client's upper management team is required, as the lack of it has been identified as one of the major risks associated with project failure.

Recommendations

Although CSC has prepared a comprehensive and detailed plan in regards of the project planning and execution, it is to serve only as a guideline for the creation of a final version of that plan to be produced upon the awarding of the contract.

In regards of the previously stated, it is necessary that the final version of this plan is created in cooperation with representatives from both Bechtel and BMA to ensure that every need and every aspect of the project has been accounted for. This is particularly applicable to the planning phase, and especially to the design of the Functional Specification (FS) as stated in the Project Execution Plan (PEP, 2010).

The cooperation of the Bechtel and BMA management team is also of crucial importance, as this cooperation and involvement will provide the necessary commitment and dedication that is required for every successful project.

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