

Feasibility Study For COBIT Consultants

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1 Executive Summary

The COBIT 19 framework software is a solution by Pheny Modisane. The idea of the software is based on the simplification and automation of audits within organizations. Information Technology (IT) audits are essential in the governance and management of an organization, they make it possible to manage and allocate tasks, resources and people within the organization. The overall effectiveness of an IT audit determines the productivity and functioning of an organization. At the end of the day an effective organization is equal to a productive organization which in turn equals to profitability. However, organizations are still using the legacy system; which can be time consuming, error prone and costly. Moreover, they may lead to inconsistencies and inefficiencies in the audit process.

The scale at which digital transformation takes place within organizations driving them to transform their business models and processes, which requires new approaches to governance and management of information technology; the mitigation and management of cyber security threats and the growing number of regulatory requirements related to information technology i.e. ISO and ITIL, all of these aforementioned factors are important when auditing an organization but the auditing task becomes daunting and prone to errors and inefficiencies when using the traditional manual auditing processes. Thankfully, these issues are addressed by the COBIT19 Framework software proposed by the client.

The client has commissioned the project team to develop software to address the mentioned factors, to simplify and automate audits with the objective of improving the performance of an organization. The COBIT19 framework will provide organizations with the opportunity to improve their IT governance and management practices, to give an organization an overview perspective of its efficiency and areas that need improvement.

The development team assigned to the project devised 3 solutions to solve the problem statement. The first option would be to continue the development of the existing solution currently with the client, the second option would be to develop a new native software solution and thirdly to purchase a pre-existing solution. The following factors were used to assess the feasibility of each solution: Business Requirements, Schedule, Budget, Resources, Practicality and Marketability.

The business requirements investigate factors stipulated in section 3.2, adherence of a solution to the stipulated factors implies it meets the business requirements. The schedule

factor addresses the period of development until the final project is done and ready for market. The budget factor refers to the costs involved in developing the solution. Resources are the skills, knowledge, expertise, technology and the people who will be working on the project. Practicality and marketability address the solution directly, whether it can be developed and whether it is needed.

2 Problem Statement

The increasing pace of technological change and growing complexity of IT systems have made it increasingly difficult for organizations to manage and govern their IT resources effectively. The lack of clear governance and management processes can lead to a variety of risks, such as security breaches, compliance violations, and inefficiencies that can hinder the achievement of business objectives. The COBIT framework provides a comprehensive set of guidelines and best practices for IT governance and management, but the lack of automation tools and integration with existing systems can hinder its adoption and effectiveness. A project is needed to develop a software solution for automating IT auditing according to the COBIT framework that can help organizations to align their IT infrastructure with business goals and objectives, improve compliance, and reduce risks.

2.1 Business Environment

There are several key aspects of the internal and external business environment that have resulted in the need for tools to implement the COBIT 19 framework in an organization. In the internal business environment, the pace of technological change is rapidly increasing, which has resulted in the need for new technologies and disruptive innovations. The complexity of IT systems and processes is increasing, which makes it challenging for organizations to manage IT effectively and keep compliance with regulations. The updated COBIT 19 framework aims to simplify the governance and management of IT by providing a clear, concise, and comprehensive approach. This is a step in the right direction but implementing the framework in a business environment is still a challenge and technologies to make this easier would be welcomed by the industry.

Currently, there are only a handful of companies that provide products to address this problem. These products are generic, expensive, and hard to implement. A gap in the market exists to provide products and services to companies to evaluate their business goals and align their IT resources to those goals.

2.2 Business Problem

The core business problem that COBIT 19 is addressing is the need for effective governance and management of information and technology in the face of rapidly evolving technologies, growing cybersecurity threats, increasing regulatory requirements, and outdated software.

Problems COBIT 19 solves:

- Digital transformation: The increasing pace of technological change is driving organizations to transform their business models and processes, which requires new approaches to governance and management of information and technology.
- Cybersecurity threats: The frequency and sophistication of cybersecurity threats are increasing, and organizations need to take proactive measures to manage these risks.
- Regulatory compliance: Organizations are subject to a growing number of regulatory requirements related to information and technology, such as ISO and ITIL. Organizations must comply with these regulations by law so that they are standardized.
- Complexity of the COBIT framework: The COBIT framework is a comprehensive set of guidelines and best practices for IT governance and management. However, many organizations find it challenging to implement and maintain due to its complexity and the need for specialized knowledge and skills.
- Manual nature of audits: Many organizations still rely on manual processes for IT auditing, which can be time-consuming, error-prone, and costly. This manual approach may also lead to inconsistencies and inefficiencies in the audit process.
- High costs of audits: Traditional IT audits can be expensive, requiring significant resources in terms of time and personnel. This can be a significant burden for organizations, particularly smaller ones with limited resources.

By automating and streamlining the IT audit through a software solution many of the challenges of IT auditing and implementing the COBIT-19 framework could be addressed. This could potentially save time and resource offloading much of the heavy work to a software solution.

2.3 Business Opportunity

As organizations become increasingly reliant on technology to achieve their business objectives, the need for effective IT governance and management practices is more important than ever. The COBIT framework provides a comprehensive approach to IT governance and management but implementing it manually can be challenging and time-consuming. A

software solution that automates the process can save time and effort, making it an attractive option for organizations.

Potential customers for the software solution include organizations of all sizes and across all industries, especially those that are highly regulated or have complex IT environments. This includes financial institutions, healthcare providers, government agencies, and large corporations. Smaller organizations may also be interested in the solution if it is affordable and easy to use. The benefits of the software solution include improved efficiency and effectiveness in IT governance and management, as well as better compliance with regulations such as ISO, ITIL, and KING. It can also help organizations to identify gaps in their IT governance and management practices and develop a roadmap for improvement. Additionally, the software solution can provide a competitive advantage by helping organizations stay up to date with the latest trends and developments in IT.

With careful planning and execution, a software solution for COBIT compliance has the potential to be a successful business venture. Here is a significant business opportunity for a software solution that manages and audits IT resources in accordance with the COBIT framework. The market demand is high, and potential customers include organizations of all sizes and across all industries. The benefits of the software solution include improved efficiency and effectiveness in IT governance and management, compliance with regulations, and a competitive advantage.

3 Requirements Statement

For this software to be economically successful it should satisfy a few requirements that have been identified in the industry. These requirements include:

- The software should allow the customer to do an audit on its IT infrastructure and the software should be able to evaluate the input from the user to derive a maturity score for the system according to the COBIT-19 framework.
- The system should also have functionality where the company could derive an IT strategy from specifying its business goals.
- The system should make the COBIT-19 framework easy to understand and implement as this is one of the major critiques of the COBIT framework is its complexities.
- The software should be able to generate reports that could help upper management understand the state of their IT infrastructure.

These are the key requirements that the software solution should satisfy to maximize its probability of success in the market according to the analysis conducted in the business study.

3.1 Business Drivers

There are several business drivers for a software solution that effectively implements the COBIT framework for IT resource management and auditing:

- **Regulatory compliance:** Many industries have specific regulations and compliance requirements related to IT governance and security. By implementing the COBIT framework through a software solution, organizations can ensure compliance with these regulations and avoid costly fines or legal issues.
- **Improved IT efficiency and effectiveness:** Effective IT resource management is critical to the success of any organization. By using a software solution that complies with the COBIT framework, organizations can improve the efficiency and effectiveness of their IT operations, reducing costs and increasing profit.
- **Mitigation of cybersecurity risks:** Cybersecurity threats are a growing concern for organizations, and effective IT governance and management practices are key to mitigating these risks. A software solution that implements the COBIT framework can help organizations identify and address potential cybersecurity vulnerabilities, protecting sensitive data and assets.
- **Enhanced stakeholder trust:** Stakeholders, including customers, investors, and employees, increasingly expect organizations to have robust IT governance and management practices. This solution would improve transparency, accountability, and trust with their stakeholders.

3.2 Business Requirements

Business Problems and Opportunities	Solution (Project) Requirements
Currently, the COBIT 19 framework seems to confuse rather than enhance the governance of IT in the industry.	The software solution should be intuitive and make the framework easy to understand and implement. Thus, UX and documentation are of utmost importance
Aligning business goals with IT	To align the goals of the business and IT processes is perhaps the most important factor to make your IT infrastructure as effective as possible. This system should aid top

	management to identify weaknesses and inefficiencies in their IT strategies and suggest ways to improve it.
IT Auditing	Auditors will use this system to align and conduct their audits and generate reports to communicate a company's compliance with COBIT 19 framework.

4 Feasibility Assessment

4.1 Potential Solutions

Three potential solutions have been carefully considered and reviewed by the Cobit Consultants, namely:

- Continuation of the development of the existing web application solution
- Development of a new native software solution as a desktop application
- Purchasing of a pre-existing solution from a third-party vendor

We will now continue to analyze in depth the feasibility of each solution to determine which would be the recommended solution for this situation.

4.2 Assessment Criteria

For all the proposed solutions offered by the Cobit Consultants team, multiple aspects regarding the feasibility of the solution were considered, the following criteria were then created to accurately assess the feasibility of each solution (Each section being rated out of 10):

Feasibility Criteria	Explanation
Business Requirements	This criterion would inspect whether the business requirements as stipulated earlier in this document will be properly satisfied by the solution.
Schedule	This criterion would inspect whether the solution will be able to develop to a fully functioning state within the assigned deadline for completion.
Budget	This criterion would inspect whether the solution will remain within the agreed upon budget.

Resources	This criterion would inspect whether there are adequate resources available to create the solution.
Practicality	This criterion would inspect exactly how practical this solution would be for implementation into a company and regular use.
Marketability	This criterion would inspect how viable the solution will prove to be economical, if it will be profitable for the business.

4.3 Continuation of development of existing web application solution

4.3.1 Description

This option would entail putting the development team onto the existing COBIT 2019 solution owned by the client currently. Our developers would then work to fix any identified bugs in the solution, improve existing features and add any new functionality as directed by the needs of the client. Since this would be a continuation of the existing solution, the specifications of the solution would be a Web Application.

Implications of the solution being a web application would be that any of the users of the web application would have to meet a few pre-requisites to use said solution. One would require a device that is able to access a web browser as well as a working internet connection. On top of this, any new features or changes included into this existing solution might require training for end-users as they would have to be made aware of these new functionalities and how to make proper use of them.

The goal of the developers working on the project will be the following:

- Certain aspects of the solution, such as navigation or progress indication features will be made clearer to the users. This will allow them to better use the software and be able to better understand the progress being made by the organization regarding COBIT 2019 implementation.
- Useful functionality will be added to the solution to improve the ability of the software to aid organizations in implementing the COBIT 2019 framework.
- The existing solution will be made to integrate useful technologies such as Power BI and Microsoft 365 to improve data visualization and provide further functionality.

4.3.2 Results

Solution Criterion	Feasibility Score	Assessment Method
Business Requirements	10	With the resources and knowledge of the development team, the business requirements will be easily met.
Schedule	10	The solution will be provided within the decided deadline. This would be because the developers would be continuing from an already mostly developed solution.
Budget	7	Having an already existing solution does mitigate costs, but there will still be cost involved with the development team learning how the current solution was built up plus the continuation of development. A quality server host must also be found, this cost may go higher for a proper product to avoid downtimes.
Resources	10	Many technologies are available to create the solution whether software related, or hardware related. This means that there will be sufficient and adequate resources.
Practicality	9	This solution will allow clients to effectively apply the Cobit 2019 framework to their company.
Marketability	9	Cobit 2019 is a very well-known framework that many businesses are looking to implement into their operations. Given this, the marketability of the solution will be quite high as the solution focuses on implementing this framework.

4.3.3 Risks

Risk Description	Risk Likelihood	Risk Impact	Risk Mitigating Actions
Deadline not met	Low	High	Careful planning and continuous work will be done for the project, making said risk unlikely.
Business requirements not met	Low	Very high	The client and any other relevant parties will be part of the development process throughout.
Higher budget than expected	Low	High	Careful planning in the early stages of the project life cycle and constant monitoring of potential new costs will make sure any budget changes are alerted to the client as early as possible.

4.3.4 Issues

Issue Description	Issue Priority	Action Required to Resolve Issue
Access to internet is imperative	Very High	Any business that uses this software will need to make sure a proper internet connection is put into place.
Depends on end user's technological competency	High	A comprehensive training process will be put into place for the new features implemented. The software will also be focused on ease of use, mitigating this issue even more.

4.3.5 Assumptions

Since this is an already existing solution owned by the client, any assumptions that were made before for this solution would still be valid. This would be factors such as end users of the solution having access to the internet and devices being able to access web browsers adequately.

4.4 Development of new native software solution

4.4.1 Description

This option would entail the development of a native desktop solution from scratch and installing the new software package on the client's computer infrastructure. This solution would be geared towards windows machines and would simplify and unify all processes that were previously done on an Excel sheet. The development team would do a study to determine all the necessary and auxiliary functions that the users would require and setup a detailed scope of how these features would be implemented. The team would then build the solution after the set of features has been agreed on by stakeholders and the development team.

The implications of a native solution would be that the user would have access to a windows machine and the software installed on it. Since it is not a web-based solution this program would function in offline conditions. The users might have to receive training to use this solution effectively. Scheduled automatic updates will take effect when available provided the machine is online.

4.4.2 Results

Solution Criterion	Feasibility Score	Assessment Method
Business Requirements	10	The new software solution will meet all the business requirements with the help of the resources at the project team's disposal and the knowledge of the development team.
Schedule	5	The schedule will be greatly impacted since the solution has to be built from the ground up which can cause deadlines to be missed.
Budget	6	The development cost of solutions built from scratch is very high.
Resources	7	A lot of resources will be used to create the solution from scratch, which can become expensive.
Practicality	8	The solution will be very practical and easy to use, because the development team will

		be working alongside auditors who will use the solution and then can contribute to the intuitiveness solution.
Marketability	9	The solution will have a lot of market value, because it attempts to address the business problem at an affordable cost.

4.4.3 Risks

Risk Description	Risk Likelihood	Risk Impact	Risk Mitigating Actions
Deadlines could be missed	High	Very High	Although this is the first time the team is working on a project of this scale all the members have worked on a software project and on group projects, it is still a major risk that should not be overlooked.
Maintainability could be impeached if the development teams leave the organizations	Medium	High	This project will most likely be maintained by IT services if it is approved.
Companies that make use of other operating systems will not be interested in our product	Low	Very High	Most companies use Microsoft windows as their operating system of choice.

4.4.4 Issues

Issue Description	Issue Priority	Action Required to Resolve Issue
Issues could be had with understanding the Cobit 2019 framework adequately to implement a solution.	Medium	The dev team must access the relevant resources to gain proficient knowledge necessary.

4.4.5 Assumptions

We assume the previous team's code was well documented and working on the codebase will not be a total nightmare. This should be the case as we already have looked at their documentation and all seems in order and well maintained.

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4.5 Purchasing of pre-existing solution

4.5.1 Description

The final option would be to purchase or subscribe to a pre-existing software solution from a 3rd party vendor. There exist many companies that provide services and products to address the need for IT governance auditing and evaluation. These tools and products all vary from simple baseline IT audits to full-blown management and governance solutions that involves letting 3rd parties manage your whole IT infrastructure. Although these systems would require less effort to implement, they may not provide the same level of customization and control as a software solution specifically designed for the COBIT framework. Additionally, relying solely on third-party solutions can be costly, especially if multiple solutions are needed to address different aspects of IT governance and management.

4.5.2 Results

Solution Criterion	Feasibility Score	Assessment Method
Business Requirements	7	The pre-existing software from the 3 rd party vendor might not cover all the business requirements of the client or have the necessary functionality specified by the requirements.

Schedule	10	The schedule will be impacted greatly because the time it takes to purchase new pre-existing software instead of building software in-house is much less, therefore deadlines will be met easily.
Budget	5	The pre-existing software licenses might cost a lot more than it would have cost to build software in-house. The costs of these solutions are rather hard to exactly quantify without contacting them and understanding exactly which products will be needed from them.
Resources	8	The resources that will be used are much less than it would have been to build in-house software.
Practicality	7	Pre-existing software has been tried and tested and will likely contain less faults and bugs than it would if we developed the software in-house.
Marketability	4	The pre-existing software is already on the market and thus has no marketability for the business, except for using the software to consult with businesses and to audit their IT infrastructure.

4.5.3 Risks

Risk Description	Risk Likelihood	Risk Impact	Risk Mitigating Actions
Business requirements not met	High	Very high	Extensive research would have to be done to find an adequate solution. Most likely, however, all the requirements will not be met, and a more customizable solution should be explored.

Budget not met	Medium	High	Research into the modules offered by these companies will be conducted to determine exactly what is needed by the business.
Maintenance may be a hassle as the 3 rd party will be responsible for any updates or upgrades.	Medium	High	As we will be a kind of vendor for the 3 rd part company special arrangements could be made prior to ensuring that we get priority when it comes to maintenance of the software.

4.5.4 Issues

Issue Description	Issue Priority	Action Required to Resolve Issue
Requires quality internet connection	High	This will have to be managed by the business in use of the software, they must make sure employees have means to access the internet.
Limited by skills of the user.	Low	The solution has been specifically built with ease of use in mind and adequate training resources will be made available.

4.5.5 Assumptions

The major assumption that is made with solution would be that the business involved will be comfortable outsourcing their GRC management systems to third-party vendors.

5 Feasibility Ranking

In this section, the three solutions are now ranked and compared.

5.1 Ranking Criteria

The feasibility ranking criteria that has been used in the previous section will be combined with specific weight values to more accurately rank these solutions in terms of feasibility. The feasibility criteria looked at will then be Business Requirements, Schedule, Budget,

Resources, Practicality and Marketability. To be more specific about the weights used, each weight value has been given to more properly represent the importance of each of the different criterion.

5.2 Ranking Scores

	Solution 1			Solution 2			Solution 3		
Criteria©	Score	Weight	Total	Score	Weight	Total	Score	Weight	Total
Business Requirements	10	0.35	3.5	10	0.35	3.5	7	0.35	2.45
Schedule	10	0.2	2	5	0.2	1	10	0.2	2
Budget	7	0.15	1.05	6	0.15	0.9	5	0.15	0.75
Resources	10	0.1	1	7	0.1	0.7	8	0.1	0.8
Practicality	9	0.1	0.9	8	0.1	0.8	7	0.1	0.7
Marketability	9	0.1	0.9	9	0.1	0.9	4	0.1	0.4
Totals			9.35			7.8			7.1

6 Feasibility Result

From the above ranking, it can then be seen that the first solution ranks the highest with regards to feasibility and can be considered as the most feasible solution. This conclusion has been reached after observing the superiority of this solution over the other suggested ones with regards to business requirements, schedule and budget.