DOI: https://doi.org/10.31410/ITEMA.2023.311

Project Management, Functional and Business Analysis in Fin-Prisma

Vítor Martins[1]
Leonilde Reis[2]
Marco Santos[3]

Received: December 20, 2023
Accepted: March 20, 2024
Published: May 28, 2024

Keywords:
Functional analysis;
Projects;
Processes;
Documentation;
Tests;
Software

Abstract: *Organizations rely heavily on Information Systems and Information and Communications Technologies to support business strategies and offer unique services to their clients. In project management, the focus is on the role of functional analysts and their skills in enhancing client relationships. This approach involves exchanging information and knowledge among specialists and researching internal and external documents related to each business's specific context. The key outcomes highlight the functional analyst's importance in the organizational setting, serving as a differentiator in client relations and facilitating interactions to ensure the final solution meets the client's expectations and needs.*

1. INTRODUCTION

According to Marchewka (2015), it is determined that the business analyst has been called by other names as "(…) business system analysts, systems analysts, business technology analysts, or requirements analysts (…)". "Anyone who has ever worked on a complex and lengthy software development project knows that the involvement of a business analyst can mean the difference between success and failure. And that involvement starts at the very beginning of the project." (Marchewka, 2015, p. 145).

Marchewka (2015, p. 145) refers to Wailgum's outline of eight key duties of a business analyst:

- Understand the scope of the system (working closely with the business stakeholders to communicate and determine their vision for the project).
- Interpret the business needs ("translation" of the stakeholder's requirements linked to the business to the programmers and, all the matters regarding the programmers back to the business stakeholders).
- Translation of the technical matters (transmit the technical specifics in a way that can be understood by the business).
- Determine the details of the project and requirements.
- Link that keeps the programmers in contact with the right people (intermediary with good contacts able to help the project members contact people of the organization).
- Political guide (avoid problems and political conflicts).
- Tests and validation (working in proximity with the Quality team in a way that can check if the requirements of the business stakeholders are met).
- Represent the project stakeholders along with all the process.

[1] ESCE - Polytechnic Institute of Setúbal, Setúbal, Portugal
[2] ESCE - Polytechnic Institute of Setúbal, Setúbal, Portugal
[3] Fin-Prisma Lda, Lisboa – Portugal

Furthermore, it is possible to see an overlapping of the concepts, being very similar. The importance consists of serving as an intermediary between the project team and the business stakeholders, possessing the ability to be the bridge between the parts, translating and replicating the needs and communication in a way that both can understand each other and execute, with success the projects, providing solutions for business problems (Marchewka, 2015).

The paper is structured into six chapters. The first chapter, which is the current one, is titled Introduction. The second chapter is named Further Responsibilities, while the third chapter is called In Loco Developments. The fourth chapter covers Validation and Documenting. The fifth chapter discusses Future Research Directions, and the sixth and final chapter is the Conclusion.

2. FURTHER RESPONSABILITIES

The main aspects of a functional analysis that is done by business analysts, regarding Marchewka (2015), are that is a broader and global denomination and, to be able to encapsulate all its roles, responsibilities, and necessities, and be able to deliver a solution (it can be a product/service) interesting and useful to the client. It is needed to have the structure and project follow-up necessary for that same solution, being necessary to undertake a project.

Managing a project requires the ability to identify requirements, establish clear and attainable objectives, equilibrium regarding the quality, scope, time, and cost (the last three impact the quality of the project), and adapt to the specifications, plans, and approach to the stakeholder's expectation. Furthermore, the manager (regarding the dimension and necessity of the company, could be the business analyst) needs to be able to manage and respond to the uncertainty, mainly when calculating the risk of affecting (negative or positive) the project objective (Fahrenkrog et al., 2004).

The planning and preparing of a project for developing a solution that potentiates the success of that same project, even if it is simple and direct, short, or long and complex. Only with a holistic understanding of the enterprise in hand and follow-up by one of the stakeholders that connects the parts is the key that permits that correct guidance (Martins, 2023).

In the final stage and, possibly, the most important to find if the intended value by the client of the existent solution is necessary tests to exist to ensure that the new, or changed, functionalities comply with the defined requirements. Considers that a test strategy, in addition to defining a general approach able to apply to an environment, platform, or service, should extend to the developed solutions by the organization, or by others developed externally and that that strategy should be based on acceptance criteria aligned with the stakeholder requirements. Various tests could be performed (Utilitarian/Functional; Regression that is composed of performance and capacity, compliance, operational, and the guarantee that achieves what the users want) (AXELOS, 2019).

However, the main function of the test, according to Jindal (2016) is to detect bugs and, according to AXELOS (2019), tests should include executing the code in various environments and examining various aspects of the same, checking if the solution does what is supposed to and works accordingly with the specified requirements. According to Jindal (2016) is an activity that exists to test the quality of the software and upgrade, mentioning that the objective of testing is to detect errors, with minimal effort and time, having as a base purpose verify and validate in a way to detect various problems, being able to solve them. However, tests should be done in controlled situations.

The necessity of tests during the Software Development Life Cycle is rooted in the identification of errors, ambiguity removal, improvement of the company's reputation, improvement of the solutions quality, removal of danger, verification and validation, improvement of reliability, improvement of the cost and increase the usability (Jindal, 2016). The purpose of tests is to meet some of the business analyst's necessities and enable him to inspect, in the final moments, if the assumptions made by the clients are achieved.

3. IN LOCO DEVELOPMENTS

A business analyst can take on any or all roles at any stage of a project, depending on the project's needs. However, certain duties are constant, such as acting as a bridge between the client, commercial team, and development team. This involves interpreting and facilitating communication across different languages and perspectives. The business analyst also plays a crucial role in mediating between the client's specific needs and what the commercial team aims to sell. They must balance satisfying the client's needs without overloading the technical team responsible for implementing the solution. The goal is to manage expectations and bring a realistic approach to meeting everyone's objectives.

In their work, a business analyst should prioritize neutrality and focus on the client's needs without fostering unrealistic expectations. Their role is to be a useful and realistic guide, offering their full attention and expertise to assess whether the client's requests are feasible and whether they involve significant or even insurmountable effort. The importance of this assessment is that if the development team is unable to realize the sale due to the analyst's unrealistic promises, then the earlier negotiations and identified needs would ultimately be in vain. The goal is to ensure all parties are aligned and maintain a balanced approach throughout the process.

A business analyst should possess professional qualities such as curiosity and a love for learning. In the context of software, the analyst needs to explore its capabilities to meet the client's requirements. This involves understanding the potential of different technologies and finding ways to align what can be developed with the client's specific business needs.

In that regard, exemplifies the behavior of a client regarding the needs of the development of a solution. In this way, it becomes fundamental to:

- Being familiar with the company's solutions allows the business analyst to know whether they can be used or adapted for a new project. By assessing the aesthetic and functional aspects of a current solution, the client may suggest a new approach that mirrors the existing one. This approach offers the benefit of reusing frontend and backend code for the new solution, as well as drawing on the experience gained from implementing similar projects.
- Listening carefully to the client's needs and being familiar with existing internal solutions allows one to identify already-developed options that can address the client's requirements. Additionally, this knowledge can lead to discovering other needs the client may not have considered but are logical extensions of their initial needs.

4. VALIDATING AND DOCUMENTING

Documentation is essential. In the case that the client wants to visualize the solution, but it is not yet a Proof of Concept, it is important to reunite the needs and expectations, know the capabilities of the product and services, own the capabilities of the company, and then start producing physical documentation that can be used as a factual confirmation of this what the solution can be.

The client wants documentation for reference and the solution provider needs a clear starting point to develop the solution. Therefore, it is important to produce a document that encapsulates both the client's needs and the provider's capabilities, facilitating understanding, interpretation, translation, and planning. This document should detail the component's functions, and adjustments to existing solutions, and provide a written visualization of how the result will look, offering the client a realistic view of what can be achieved.

Figure 1 outlines a document flow that can be used for any solution's documentation needs. It was created using Fin-Prisma's software, Read, Write, and Share (RWS), which is a vital tool for creating workflows, archiving documents, and managing tasks.

Figure 1. Steps for Documenting
Source: Own research

Figure 1 presents the relevant phases regarding documenting:

- "Proposal Documentation", serves as a basis for development and project, for the provider and client, reuniting the client's needs in the first phase, has expectations, conditions, and interests.
- "Client Requisites Documentation", is the final phase of the requirements and sketches that shall support the development.
- "Developing Documentation", documents about the development, either be code, project, or meeting minutes.
- "Tests Documentation", test documents to support the solution regarding the client and its requests.
- "Application Support Documentation", is documents that can be reunited knowhow from previous phases and that shall be useful to generate manuals and development closure.

The following figure, Figure 2, was made to show, in terms of finalizing, the global aspect of some roles the Business Analyst should have, based on Marchewka (2015).

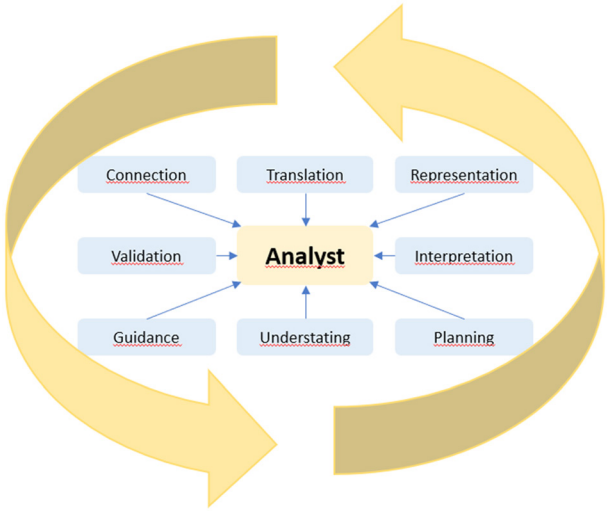

Figure 2. Holistic involvement expected from a Business Analyst
Source: Marchewka, 2015

Figure 2 presents the elements that permit a business analyst to fulfill his role. However, returning to documentation, this is an important activity end in pouring to the NP ISO/IEC 27001:2013 (2013) and ISO/IEC 27002:2022 (2022) norms that, in many of their instances, mention and indicate the need to generate evidence (pieces of evidence that can be in document format).

5. FUTURE RESEARCH DIRECTIONS

Regarding the theme in the study, it considers that the business analyst work should include the vision of the global management facing the specifics of the organization's business.

6. CONCLUSION

The broader discussion on functional and non-functional requirements is particularly relevant, emphasizing the importance of functional tests and documentation for the client. Conducting these tests and providing thorough documentation is invaluable and essential. Testing ensures the quality of the solution within the agreed requirements, while documentation allows for future analysis, maintaining purpose, and disseminating information to both current and future users. This process aids in optimizing use and fostering continuous improvement, contributing to the generation and sharing of knowledge.

Recalling Walsh's (2008) words, the role of the business analyst remains a highly sought-after asset due to the dependence on technology and the gap between IT and business. More than a decade later, this statement still holds true.

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