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Measuring Operational Efficiency: A Functional Analysis of Core and Non-Core Activities in a Leading Romanian Oil and Gas Retail Company

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Abstract. *This paper employs a qualitative approach to conduct functional analysis within one of the main players in the Romanian market in the retail oil and gas industry, utilizing the company's internal intranet platform to gather data. The study unfolds in distinct stages, beginning with department selection, followed by task breakdown, activity categorization, data collection, analysis, and insight sharing. The analysis reveals a comprehensive view of the company's operational landscape, guiding strategic decisions and resource optimization. Key conclusions highlight the significance of core activities for revenue and growth, the value of diverse employee typologies, and opportunities for efficiency enhancement. The study's insights offer practical directions for managing core competencies, fostering informed collaboration, and adapting to industry changes. Future recommendations include leveraging this analysis for future strategy, investment, and innovation.*

Keywords: Functional analysis, retail oil and gas, core and non-core activities, process efficiency, resource allocation

Introduction

In the context of modern business dynamics, the persistent pursuit of operational excellence stands as a foundational principle guiding companies toward success within the competitive market.

Through this article, we approach operational efficiency, with a special focus on Romanian retail oil and gas establishment. Based on the valuable insights obtained from the examination of relevant literature, our research dives into the complex interaction between core and non-core activities. This analysis reveals the vital roles played by business activities in shaping the company's strategic direction. Central to our study is the functional analysis, a quantitative tool enabling a comprehensive evaluation of the company's operational landscape. Beyond assessment, the functional analysis emerges as a foundational element driving strategic decisions and resource allocation optimization. As we examine the company's operational activities and workforce roles, our research unfolds insights highlighting not only responsibility distribution but also the organization's adaptability to industry changes.

Within this context, our article draws conclusions from the functional analysis, uncovering multi-faceted implications resonating across the organizational framework. The distribution of core

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and non-core activities underscores a strategic emphasis on revenue-generating functions, while the diverse employee roles demonstrate the organization's strength in promoting informed decision-making and cross-functional collaboration. Amid the complex balance of resource allocation and efficiency, our findings spotlight opportunities to enhance non-core processes, reflecting the organization's interest in ongoing improvement.

Functional analysis serves as a valuable methodology for companies to identify areas within their operational framework that can be enhanced through the elimination or reduction of inefficiencies. This approach involves a process analysis with the outcome of breaking the processes into their functional components, giving the company the opportunity to assess the specific contributions of each step of the process. Consequently, this evaluation empowers companies to do strategic optimizations, encouraging operational process efficiency.

Literature review

Effectively utilizing resources is essential for enhancing a company's performance, and as a result, management should give significant importance to this aspect (Dalwai et al., 2021). Research indicates that businesses that demonstrate heightened operational efficiency are more likely to attain superior results in today's competitive markets (Lee et al., 2019).

The necessity for operational efficiency within organizations to grow in the highly competitive business environment is well-acknowledged (Habib et al., 2022). Research highlights the importance of efficiency as a metric for evaluating a company's performance. Studies (Mostafa, 2010; Tran et al., 2020; Seth et al., 2021) have demonstrated that a company's efficiency represents a beneficial impact on its comprehensive performance.

A common way of improving the operational efficiency in a company is to identify, improve or eliminate processes that are not bringing added value to the company. According to Ghodeswar and Vaidyanathan, companies fundamentally possess three categories of processes: core processes that provide strategic benefits, crucial non-core processes that hold significance yet do not contribute to competitive distinctiveness and non-core non-critical processes that are essential to ensure the functioning of the environment (Ghodeswar et al., 2008).

In order to divide the companie's processes into core and non-core, a functional analysis can be used. Functional analysis provides a comprehensive understanding of an entity's efficiency, effectiveness, and the methods by which it carries out its operations, processes, and administration (Jahija, 2017).

According to Klisaroski, Elezi and Josimovska, functional analysis is frequently viewed as a managerial tool (Klisaroski et al., 2023). The process involves gathering data about the tasks carried out by employees in a specific company, along with the approaches they use to achieve their objectives. This methodology should be recognized as a crucial asset for organizations, enabling them to conduct self-assessments to evaluate the effectiveness and quality of their endeavours.

Starting from the functional analysis and split between core and non-core processes, the company can analyse the non-core and low value processes and identify proper ways of process reduction or improvement.

Lately, an innovative strategy referred to as Business Process Management (BPM) has garnered substantial attention and exerted a noteworthy impact. BPM emerges as a methodology intricately interweaving various management disciplines with operational processes. Fingar introduced the initial conceptualization of BPM, defining it as a process management strategy centred on the continuous enhancement of business processes (Fingar, 2003). To achieve this, the BPM philosophy delineates a comprehensive life cycle comprising distinct stages: design, modelling, execution, monitoring, and optimization.

The design phase is primarily focused on comprehending and analysing the dynamics of processes within the organization. This entails understanding of executed tasks, defining responsibilities, and identifying involved roles, forming the basis of the current state model. An additional discovery sub-phase within this stage facilitates the identification of weaknesses, enabling the rectification or restructuring of tasks. Consequently, in the second stage, if improvements within the current state model are identified, the improvement process follows, and interactions among diverse process participants are presented in the future state model.

Progressing to the execution phase, the implementation of the formulated models comes to fruition, culminating in the automation of delineated tasks. Subsequently, the monitoring phase assumes the role of overseeing the accomplishment of predetermined objectives and flagging any potential errors, anomalies, or deviations from defined targets. This scrutiny is facilitated through the formulation and analysis of key performance indicators (KPIs), pivotal in quantifying the effects of implemented measures. Finally, based on these insights, the optimization phase is dedicated to the implementation of new measures built to refine processes and enhance overall efficiency (de Ramon Fernandez et al., 2020).

Methodology

The research employs a qualitative approach to apply functional analysis within the company, utilizing the company's internal internet platform as a means of gathering data from participants.

The application of functional analysis as a mechanism for enhancing business processes within the corporate context unfolded across a sequence of stages.

The first stage began by selecting and agreeing upon the specific departments that would be the focus of the analysis.

In the second stage, the company searched into its day-to-day operations. This involved breaking down all the tasks and activities it undertakes. These tasks were then categorized into two main clusters. The first cluster contains the split in activities into core and non-core, based on existing mapped processes. The second cluster divided employees into 10 typologies, attributes of their work.

The third stage focused on collecting the necessary data. This step involved reaching out to all employees in the selected departments. Through the company's internal communication platform, employees were asked to list their daily tasks.

In the fourth stage, all the data collected has been analysed.

The final stage is dedicated to sharing the insights gained from the analysis. During this phase, the study presented its findings to the company. This helped ensure that everyone had a clear understanding of the results, aiding informed decision-making.

The determination of core and non-core activities within each department was achieved by referencing the job sheets associated with the various positions within those respective departments. Subsequently, the validity of these categorizations was confirmed through consultation with the departmental managers.

Results

The functional analysis has been applied in one of the main players on the Romanian market in retail oil and gas industry.

For the study purpose, 7 departments have been identified (Administrative department, Human resources department, Business development department, Financial department, Legal department, Operations department and Risk department), a total number of 159 employees responded and 721 activities have been identified.

Results of Administrative department functional analysis

Based on the results of the functional analysis of the administrative department, we can observe a high percentage of core activities. The department seems to be largely aligned with the company's core objectives. This could be seen as positive, as it indicates that the administrative department is primarily focused on tasks that directly contribute to the company's success (Figure 1).

The fact that 78% of the activities are categorized as core suggests that the administrative department is primarily engaged in tasks that are directly aligned with the core functions of the company. These core activities are the fundamental responsibilities that contribute directly to the company's main operations. This high percentage indicates a strong focus on essential tasks that are integral to the company's daily functioning.

The 21% attributed to non-core activities indicates that a significant but smaller portion of the administrative department's activities are related to tasks that, while important, may not directly contribute to the core functions of the company. These tasks include support functions, administrative overhead, and ancillary duties that do not form the primary focus of the department's efforts.

The 1% designated as "other" represents activities that fall outside the defined core and non-core categories. These activities are unique or uncommon tasks that are not regularly performed. It's important that the company deep dive into this category to understand the potential impact on the department's overall role.

Given the 21% non-core activities, there could be potential opportunities for optimizing the allocation of resources and time. Reviewing non-core activities might help the company identify areas for process improvement.

Based on the activities performed by each employee of the administrative department, we can observe that 65% of the department’s employees are assigned to Implementers and are primarily involved in executing and implementing established processes and procedures.

On the opposite, the 2% attributed to Integrators indicates a small portion of employees who are specialized in integrating different processes or functions within the administrative department. Integrators likely play a role in ensuring that various activities work seamlessly together.

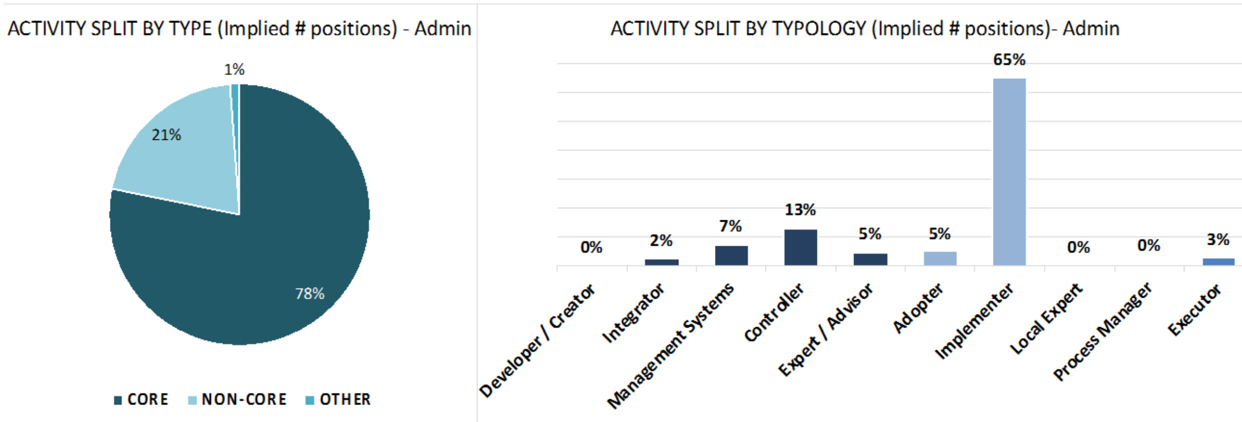

Figure 1. Distribution of Consolidated Activities by Categories and Typologies in the Administrative Department.

The prevalence of Implementers highlights that the administrative department is primarily focused on executing established processes. This could imply a stable operational foundation.

Results of Human resources department functional analysis

The results of the functional analysis suggest that the HR department is strongly aligned with the company's core objectives, as reflected in the substantial percentage of core activities.

As Figure 2 graphically shows, the substantial 71% attributed to core activities suggests that the HR department is significantly centred on tasks that are directly linked to the core functions of the retail oil and gas company. These core activities encompass responsibilities crucial to the company's primary operations. A high percentage in this category reflects a strong alignment between the HR department's functions and the company's central mission.

In terms of non-core activities, the 28% signifies that a notable portion of the HR department's efforts is dedicated to tasks that, while not directly part of the core functions, still contribute to the company's operations. These non-core activities include administrative duties, or tasks that are supportive but not the responsibility of the HR department.

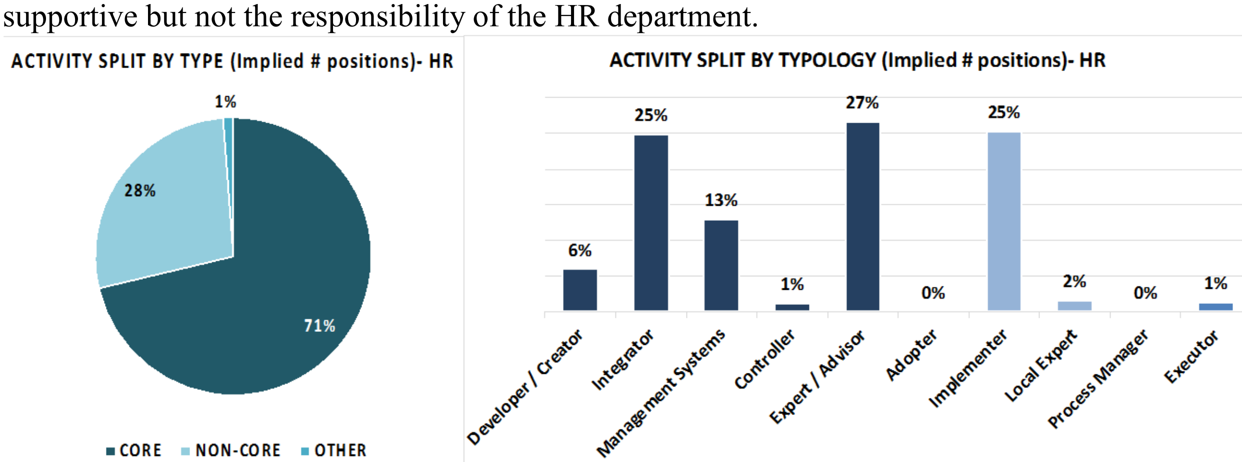

Figure 2. Distribution of Consolidated Activities by Categories and Typologies in the HR department

We can also observe that 27% are designated as Experts / Advisors which indicates that a big part of employees possess specialized expertise within the HR domain. These employees are often consulted as advisors to provide insights and guidance to colleagues and management. Also, 25% of the HR employees are Implementers and 25% are Integrators, meaning that are focusing on implementing and integrating HR processes and initiatives.

The presence of Experts / Advisors and Developers / Creators indicates a diverse pool of expertise within the HR department, which can drive innovation and informed decision-making.

Results of Business development department functional analysis

The prominent 80% assigned to core activities indicates that the Business Development department is significantly focused on tasks that are directly aligned with the core functions of the retail oil and gas company. These core activities are responsibilities that contribute directly to the company's performance management, coordinating assets restructuring activity within the Group.

The 20% attributed to non-core activities signifies that a smaller proportion of the Business Development department's efforts is dedicated to tasks like ad-hoc meetings / events, administrative activities, audit activities, and business processes of other departments (Figure 3).

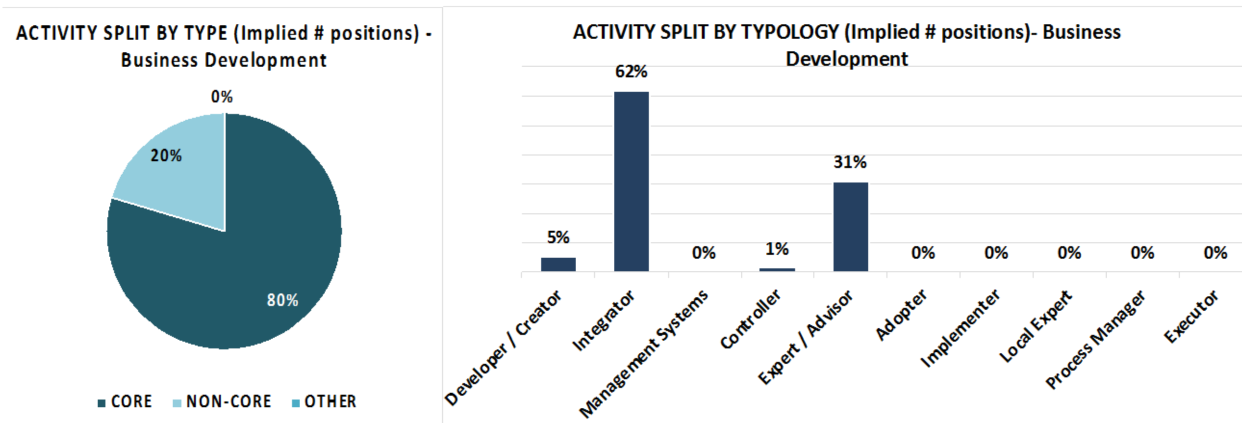

Figure 3. Distribution of Consolidated Activities by Categories and Typologies in the Business Development Department

The 62% assigned to Integrators indicates a significant majority of employees who specialize in integrating aspects of business development, aligning strategies, processes, and departments to ensure business growth. Integrators play a pivotal role in synchronizing diverse efforts toward common objectives.

The 31% assigned to Experts / Advisors are possessing specialized knowledge. These employees are usually consulted as advisors, to provide insights and guidance to colleagues and management.

The results of the functional analysis suggest that the Business Development department is significantly aligned with the company's core objectives, as evidenced by the high percentage of core activities. This indicates a strong dedication to tasks that directly contribute to the company's growth and success. While the presence of non-core activities signifies a balanced approach, the department's core focus positions it as a strategic driver for the company's expansion within the retail oil and gas sector.

Results of Financial department functional analysis

The results of the functional analysis suggest that the financial department is strongly aligned with the company's core financial objectives, as evidenced by the high percentage of core activities. This alignment signifies the department's crucial role in ensuring the company's financial health and success.

As Figure 4 shows, the substantial 81% assigned to core activities suggests that the Financial Department is primarily focused on tasks that are directly aligned with the core functions of the retail oil and gas company. These core activities likely encompass responsibilities that are crucial to the company's primary financial operations, strategic decisions, and overall success. This high percentage reflects a strong dedication to tasks that are integral to the company's financial health.

The 15% attributed to non-core activities signifies that a smaller part of the Financial Department's efforts is dedicated to tasks such as ad-hoc requests, translation, or approval processes.

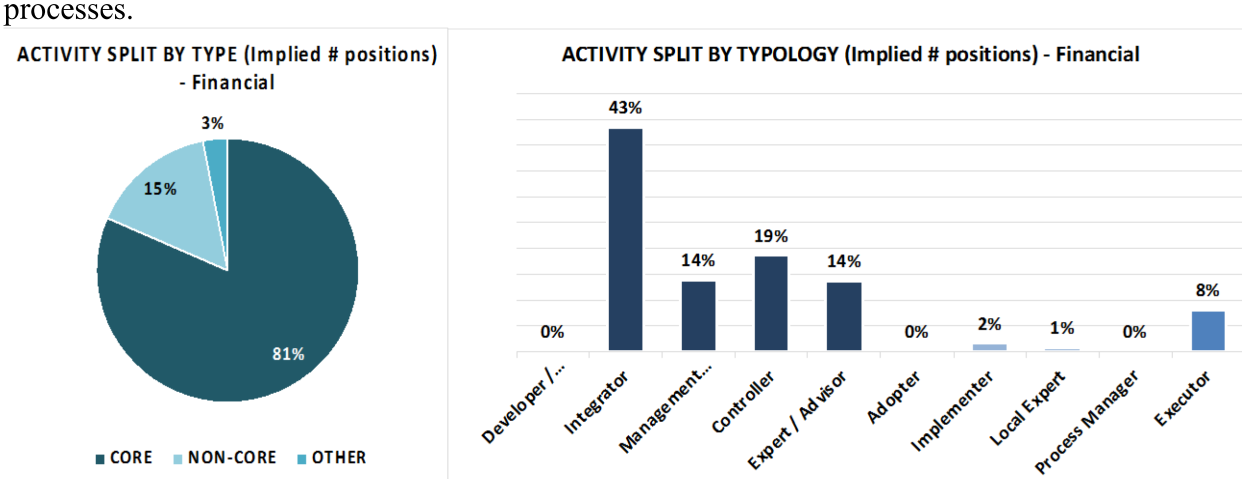

Figure 4. Distribution of Consolidated Activities by Categories and Typologies in Financial

Focusing on core activities might contribute to the Financial Department's overall efficiency, as its energies are directed towards tasks that drive financial growth and sustainability. The 43% assigned to Integrators indicates a consistent number of employees who are specialized in integrating various financial processes, aligning financial strategies, and ensuring consistency across financial operations. Integrators play a vital role in harmonizing diverse financial efforts.

Results of Legal department functional analysis

The 65% assigned to core activities suggests that the Legal Department is engaged in tasks that are directly aligned with the core functions of the company. These core activities focus on legal responsibilities that are crucial to the company's operations, compliance, and risk management.

The 34% attributed to non-core activities indicates that an important part of the Legal Department's efforts is dedicated to tasks that, are not directly tied to the core legal functions. These non-core activities include administrative tasks, ad-hoc meetings / events, audit activities, translation, and other responsibilities that complement the primary legal duties (Figure 5).

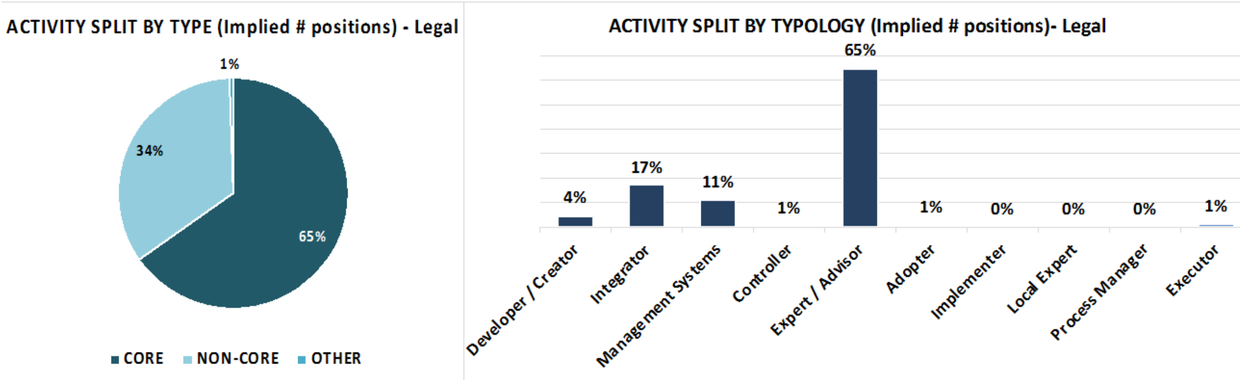

Figure 5. Distribution of Consolidated Activities by Categories and Typologies in Lega department

65% of the department employees are Experts / Advisors based on the activity performed. These types of employees are usually advisors, and their purpose is to provide guidance and advice to colleagues and management.

The results of the functional analysis suggest that the Legal Department is aligned with the company's objective but, an important part of the daily tasks of the department are focusing on other direction than the company's interests.

Results of Operations department functional analysis

As in Figure 6, we can observe that the substantial 81% attributed to core activities, suggests that the operations department is focused on tasks that are directly aligned with the core functions of the retail oil and gas company. These core activities encompass responsibilities essential to the company's primary operational processes. This high percentage reflects a strong dedication to tasks that directly impact the company's operational efficiency and effectiveness.

The 18% assigned to non-core activities signifies that a smaller proportion of the operations department's efforts is dedicated to tasks not directly central to the core operational functions. These non-core activities include ad-hoc requests and meetings, administrative activities, and approval processes, that complement but do not form the primary focus of the department's goals. With a significant emphasis on core activities, the department directs its resources and expertise toward tasks that directly contribute to operational efficiency and excellence.

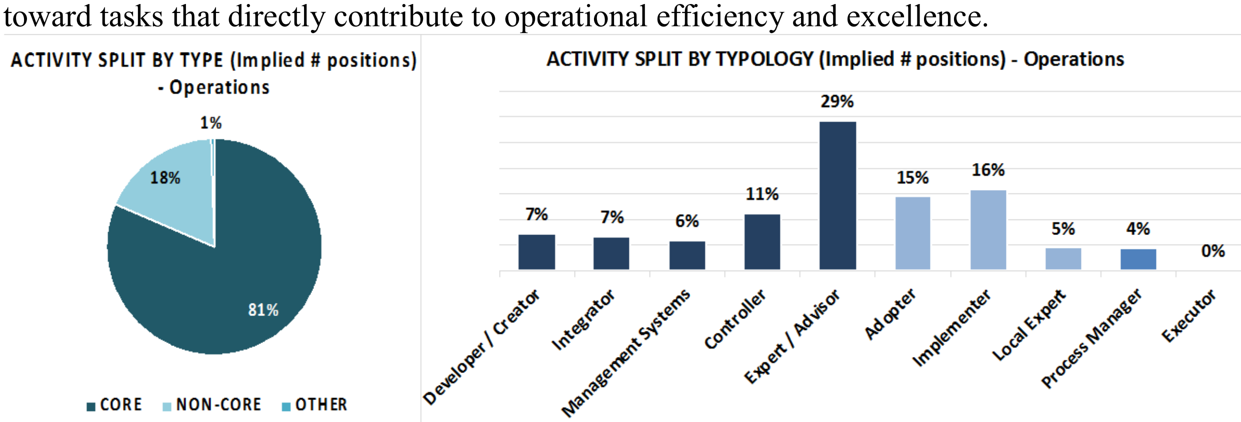

Figure 6. Distribution of Consolidated Activities by Categories and Typologies in the Operations department

The interesting part of the typology analysis is the fact that the majority of the operations department employees are assigned as Experts / Advisors. Also is a fair distribution between the department employees, between Implementer, Adapter, and Controller who are focusing on implementing operations tasks, integrating new ideas, and approaches, maintaining operational quality standards and ensuring consistency.

The results of the study provide insights into the department's capacity to integrate efforts, provide expertise, and optimize operational processes.

Results of Risk department functional analysis

The results of the functional analysis suggest that the Risk Department is aligned with the company's core risk management objectives, as evidenced by the percentage of core activities.

The 79% assigned to core activities suggests that the Risk Department is focused on tasks that are directly aligned with the core functions of the retail oil and gas company. This percentage reflects a good dedication to tasks that directly contribute to managing and minimizing potential risks.

The 20% attributed to non-core activities signifies that a smaller proportion of the Risk Department's efforts is dedicated to tasks that are not directly central to the core risk management functions (Figure 7).

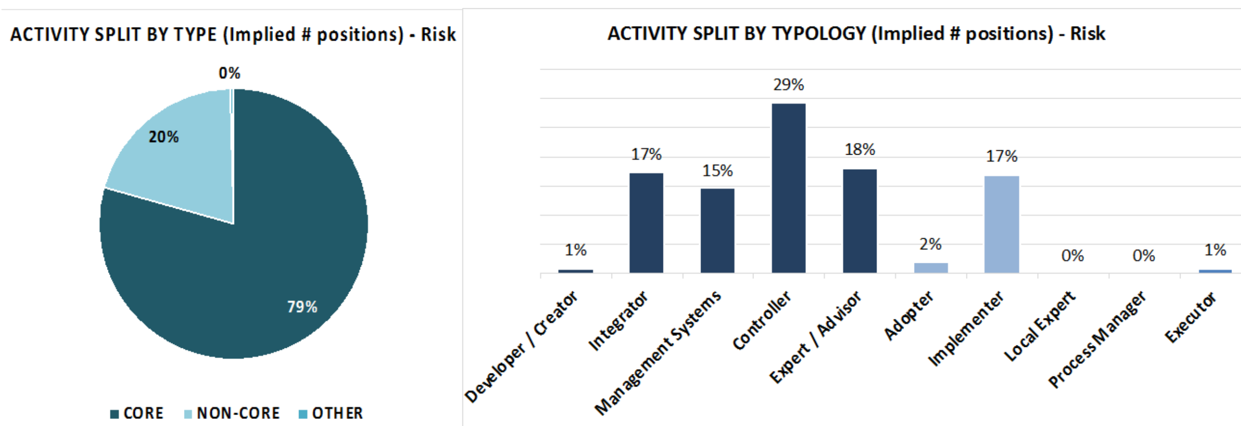

Figure 7. Distribution of Consolidated Activities by Categories and Typologies in the Risk department

Understanding the distribution of core and non-core activities provides insights into how the Risk Department's efforts align with the company's broader risk management objectives.

In terms of employees' typology, the 29% attributed to Controllers indicates a significant proportion of employees engaged in roles that involve monitoring and controlling risk management activities. Controllers likely play a role in maintaining risk quality standards, ensuring adherence to risk protocols, and fostering risk consistency.

Also, the 18% assigned to Experts / Advisors represents employees who possess specialized knowledge or expertise within the risk management domain. These employees are consulted as advisors, offering guidance to colleagues and management on risk-related matters.

The high prevalence of Controllers signifies the department's commitment to maintaining risk quality standards and ensuring consistency in risk management practices.

Consolidated data of functional analysis

Conducting an analysis of the consolidated data of the functional analysis done in 7 departments of a major player in the oil and gas industry we can observe the following:

Analysis of the activities split by core and non-core:

The quantitative breakdown of activities reveals a substantial emphasis on core activities, constituting 78% of the company's operations, as graphically represented in Figure 8. Core activities are central to the organization's core competencies and revenue generation, underscoring their strategic significance. Non-core activities, comprising 21%, occupy a consequential portion of the operational landscape, contributing to the diverse array of functions performed. An additional 1% is attributed to "Other" activities, which are likely ancillary in nature.

Analysis of the employees split by typologies:

The segmentation of employees based on typologies unveils an intricate composition of roles within the organization. "Expert / Advisor" roles hold a considerable presence at 24%, signifying the organization's reliance on specialized knowledge for informed decision-making and problem-solving. The prevalence of "Integrator" roles (21%) highlights a strategic emphasis on interdepartmental coordination, fostering collaboration and synergy across various functions. Roles such as "Controller" (12%) and "Implementer" (18%) underscore the organization's commitment to quality control and operational efficiency.

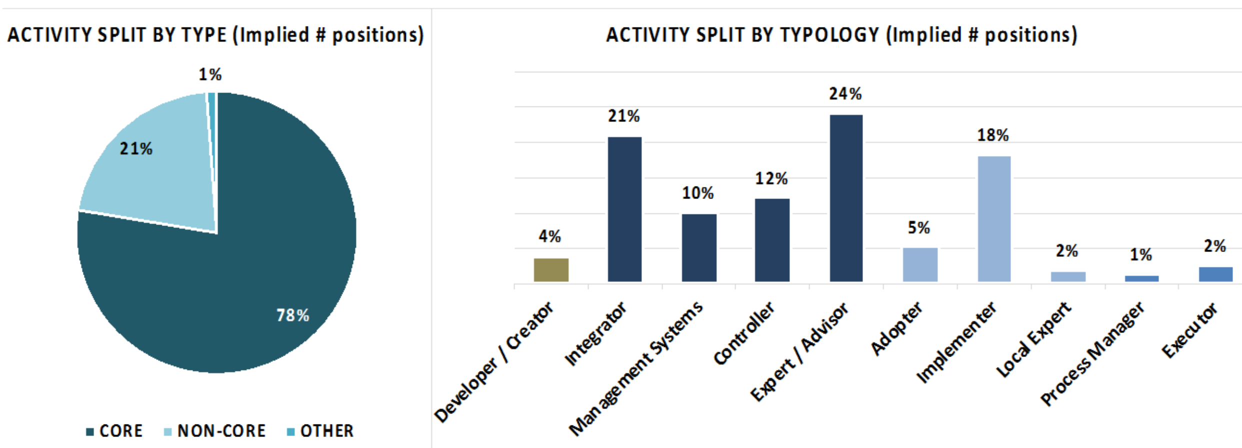

Figure 8. Distribution of Consolidated Activities by Categories and Typologies

Conclusion

This functional analysis offers a quantitative lens through which the company's operational landscape can be comprehensively assessed. It serves as a foundation upon which strategic decisions can be made, and resource allocation can be optimized to tackle core competencies, improve operational efficacy, and create a culture of knowledge-driven collaboration.

Based on the analysis, several conclusions can be drawn:

Core vs. non-core activities:

The company's focus on core activities indicates a commitment to its primary functions that likely drives its revenue and overall business strategy. Managing and optimizing these core activities could lead to increased competitiveness and growth.

Employee roles and specializations:
The distribution of employee typologies reflects a well-structured workforce that covers a range of expertise and responsibilities. The emphasis on experts and advisors suggests a commitment to informed decision-making. The presence of integrators highlights collaboration, crucial for coordinating diverse activities within the organization.
In terms of resource allocation and efficiency, the distribution of activities and employee roles provides insight into how resources are allocated. By identifying which activities are considered core or non-core, the company can allocate resources more effectively to ensure optimal performance in its essential functions.

Opportunities for improvement can be identified since non-core activities make up an important part of the company's operations, there could be opportunities to optimize these processes to reduce costs and increase efficiency.

Roles like "Adopter" and "Local Expert" indicate areas where the company might be incorporating new technologies or knowledge, suggesting a willingness to adapt to industry changes.
The forthcoming recommendations are centred on the importance of comprehending the distribution of activities and employee roles within the company. This understanding can serve as a guiding compass for shaping the company's future strategy. By delving into the distribution of tasks and responsibilities, the organization can pinpoint specific areas that require attention, be it through investment, training, or process adjustments. This strategic insight is invaluable for the company to stay competitive and foster innovation. It allows the company to adapt proactively to evolving demands and challenges in its industry, thereby ensuring long-term sustainability and growth. In essence, a clear comprehension of activity distribution is a cornerstone for effective strategic planning and organizational development.

To tackle the challenge launched by the title, measuring operational efficiency, the study's conclusions involve a multifaceted assessment of operational efficiency. It examines the balance between core and non-core activities in various company departments, providing insights into the alignment of tasks with the company's primary objectives. Furthermore, the distribution of employee roles, ranging from Experts/Advisors to Integrators and Controllers, indicates a well-structured workforce capable of fulfilling diverse responsibilities. Resource allocation and optimization are also scrutinized, with an emphasis on core activities that drive competitiveness and growth. The study underscores the importance of identifying opportunities for process improvement within non-core activities, ultimately contributing to enhanced operational efficiency. Additionally, the organization's adaptability to industry changes and its proactive approach to evolving demands play a vital role in sustaining operational efficiency, facilitating effective strategic planning, and fostering long-term growth.

Limitations and further research

While the functional analysis of the Romanian retail oil and gas company provides valuable insights, it's important to acknowledge several limitations that might affect the generalizability and depth of the study's findings:

The study primarily focuses on quantitative data without delving deeply into qualitative aspects. Factors such as market trends, competitive dynamics, and regulatory changes might influence the interpretation of results but aren't thoroughly explored.

The study provides a snapshot of activities and roles at a specific point in time. Changes in the company's operations or the industry landscape after the study's completion could affect the validity of the conclusions over time.

The categorization of employees into specific typologies might oversimplify their roles. Employees often have multifaceted responsibilities that can't be entirely captured by single typologies.

While the study identifies associations between activities, employee roles, and outcomes, it doesn't establish causal relationships. Other unmeasured factors could contribute to the observed patterns.

The study acknowledges the limitations in exploring the long-term impact of addressing non-core activities on profitability and sustainability. However, this aspect isn't fully explored within the study. Therefore, further research will focus on qualitative exploration, longitudinal analysis, employee satisfaction, benchmarking, and industry comparison.

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