

**APPLYING THE ACTIVITY-BASED COSTING (ABC)
MODEL IN A CONSULTING COMPANY:
AN IMPROVEMENT OF THE MODEL**

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Resumo

Em ambientes instáveis e de constante mudança, de que é exemplo o atual mundo das organizações, é notória a necessidade sentida pelas empresas, de conseguirem superar os seus concorrentes, tanto ao nível da estratégia, como ao nível de ferramentas utilizadas. Neste sentido, são cada vez mais as ferramentas disponibilizadas às empresas, que as auxiliam no processo de tomada de decisão, bem como no alcance de uma maior eficiência em todos os seus processos internos. É, também, por este motivo, que existe uma evidente necessidade de estar constantemente a inovar estas ferramentas, de modo a que as organizações consigam estar sempre um passo à frente dos seus concorrentes.

O tema deste projeto surge, então, no seguimento da referida necessidade, tendo como objetivo adaptar uma ferramenta (já existente no mercado) – o modelo de custeio *Activity-Based Costing* – a uma empresa de Consultoria de Gestão, a Winning Management Consulting. Esta aplicação pretende, assim, provar a adaptabilidade deste modelo à Consultoria, uma vez que são diversos os benefícios que uma empresa pode alcançar com a sua utilização, nomeadamente no auxílio da tomada de decisão e também na gestão de custos.

Em paralelo, o projeto contemplará, ainda, uma análise secundária (em complemento ao modelo aplicado), que permitirá à empresa atuar, não só sobre os processos principais (que foram alvo de análise no modelo de custeio ABC), mas também sobre todos os processos secundários, que permitem o correto funcionamento da empresa. Pretende-se então, com esta análise, contribuir positivamente para uma melhoria do modelo.

Palavras-Chave: *Activity-Based Costing* | ABC | Ferramentas de Gestão | Gestão de Custos

JEL Classification System: M10

Abstract

In unstable and constant changing environments, as it is the current organizational world, it is notable the real need felt by companies on trying to overcome their competitors, in both employed strategy and auxiliary tools. In this way, there is an increase in the available tools in the market, which aim to help companies in their decision-making process and in the achievement of higher efficiency in the running of all their internal processes. Due to this, the necessity on being constantly innovating these tools outstands significantly in companies, in order to these to be always one step in front of their competitors.

From this necessity arises the subject of this project, as it pretends to adapt an existing tool – the costing model “Activity-Based Costing” – to a management consulting company, named Winning Management Consulting. This application aims to prove the adaptability of this model to the Consulting sector, as there are so many benefits that a company may achieve from its application, namely in the assistance to the decision-making process and to the cost management.

In parallel, the project will also contemplate a secondary analysis (a complement to the ABC model), which will allow the company to act not only upon the main processes (that were analyzed in the ABC), but also upon all the secondary processes, without which would not be possible the correct running of the business. In conclusion, this analysis aims to positively contribute to the model’s improvement.

Keywords: Activity-Based Costing | ABC | Management Tools | Cost Management

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List of Abbreviations

BACC	Business Analysis Competency Center
BDO	Business Development Office
BMCC	Benefits Management Competency Center
CC	Competency Center
FIN	Finance (Office)
GM	General Management (Office)
HCO	Human Capital Office
ICT	Information and Communication Technologies (Office)
MKO	Marketing Office
MS	Management School (Office)
OBS	Organizational Breakdown Structure
OM	Office Management
PMCC	Project Management Competency Center
PMO	Project Management Office
QCO	Quality and Compliance Office

Executive Summary

O mundo organizacional enfrenta, cada vez mais, uma realidade de constante mudança. É certo que, qualquer organização que não seja capaz de se adaptar às mudanças do mercado, dificilmente conseguirá sobreviver nele. O ambiente revela-se extremamente competitivo e as empresas vêem-se obrigadas a adaptar as suas estratégias e ferramentas, àquilo que consideram ser a resposta às lacunas que o mercado apresenta.

Nesta conjuntura de alta competitividade, é exigido às organizações que estas se tornem cada vez mais eficientes, de modo a conseguirem tornar-se mais lucrativas. Desta forma, deparam-se com a extrema necessidade de conseguirem reduzir os seus custos e de aumentarem o valor que proporcionam aos seus clientes. Torna-se, assim, necessária uma compreensão clara do valor real que cada produto gera para a sua empresa.

É neste sentido, e com o objetivo de conseguir trazer uma mais-valia ao mundo organizacional, no que toca a ferramentas que auxiliem a gestão de custos, que surge o tema deste projeto: aplicação do modelo de custeio *Activity-Based Costing* numa empresa de serviços (mais concretamente, de consultoria), e consequente análise complementar.

Todo este projeto será então desenvolvido com base numa empresa piloto, *Winning Management Consulting*, que servirá de suporte à análise efetuada, bem como de ajuda à identificação de pontos de melhorias do modelo.

Após estudo intensivo da empresa em questão, o modelo de custeio em análise foi adaptado, de modo a se enquadrar no contexto real da Consultora, seguindo-se a sua respetiva aplicação.

Primeiramente, foram definidos os reais “produtos” da empresa, de modo a conseguir alocar todos os custos existentes (Diretos e Indiretos) a cada um deles. Ficaram assim definidos, como produtos, os Centros de Competência nos quais a empresa estava dividida, durante o período de análise: *Project Management Competency Center*, *Business Analysis Competency Center* e *Benefits Management Competency Center*. Todo o tipo de serviço facultado pela empresa encontra-se sempre enquadrado num destes três Centros, motivo pelo qual foram assim definidos.

No que toca à identificação dos custos indiretos incorridos pela empresa, e uma vez que estamos perante uma empresa de serviços, foram considerados todos os inerentes aos processos de “suporte”, que são transversais à atividade da empresa, e que permitem o

funcionamento da mesma. Estes processos são dez, e traduzem-se nas principais áreas de suporte da Consultora. São: o *Business Development Office*, o *Finance Office*, o *General Management Office*, o *Human Capital Office*, o *Information and Communication Technologies Office*, o *Management School Office*, o *Office Management*, o *Marketing Office*, o *Project Management Office* e o *Quality and Compliance Office*.

Estando todos estes processos devidamente identificados, procedeu-se à respetiva alocação de custos aos “produtos” finais. A estes, foram somados todos os custos diretos relacionados com cada um dos três produtos, o que permitiu, posteriormente, o apuramento do verdadeiro custo de cada um, e o peso que estes detêm nos custos totais da Winning.

Concluiu-se então que, o Centro de Competência que possui o maior peso nos custos totais da empresa é o *Project Management Competency Center*, que incorre em 131.541,44 € mensais, o que corresponde a 59,0% dos custos totais. A este, segue-se o *Business Analysis Competency Center*, com 79.855,33 € mensais, correspondente a 35,8% dos custos totais. Por fim, o Centro de Competência com menores custos é o de *Benefits Management Competency Center*, com apenas 11.521,11 € mensais, o correspondente a 5,2% dos custos totais.

Com isto, e contrabalançando com as receitas obtidas em cada um destes Centros de Competência, foi possível perceber qual é o verdadeiro retorno de cada um deles (através do *Benefit-Cost Ratio* – BCR).

As conclusões obtidas, nesta análise, revelaram não ser tão lineares quanto as obtidas na análise anterior dos custos. O *Benefits Management Competency Center* é o Centro de Competência que maior retorno proporciona à empresa, uma vez que, por cada euro investido neste Centro, são gerados 1,31 euros (o que se traduz num lucro de 31 cêntimos por cada euro investido; $BCR=1,31$). De seguida, encontra-se o Centro de *Project Management*, que proporciona um retorno de 30 cêntimos, por cada euro investido ($BCR=1,30$). Em último lugar, encontra-se o *Business Analysis Competency Center*, que provoca um retorno negativo à empresa, dado que, por cada euro investido, este centro recupera apenas 0,98 cêntimos ($BCR=0,98$, o que corresponde a um retorno de -2 cêntimos por cada euro investido).

Em paralelo, foi ainda conduzida uma segunda análise, complementar ao modelo ABC, de forma a conseguir entender o retorno, não só dos principais Centros de Competência,

mas sim de todos os processos que suportam toda a atividade da Winning (e assim conseguir atuar sobre os mesmos). Deste modo, cada uma das áreas de suporte foi decomposta em processos menores (já definidos, *a priori*, pela empresa), o que, posteriormente, permitiu uma atuação mais precisa e direta. Para esta análise, foram então apurados os custos de cada um destes processos, bem como o impacto que cada um tem no *running of the business* da empresa. Após contrabalançar, novamente, cada custo com o respetivo impacto (ou benefício), foi possível categorizar cada um destes processos em uma, de quatro categorias: Manter, Eliminar, Reduzir ou Avaliar.

Desta forma, dos noventa e um processos que foram alvo de análise, foi possível concluir que: três processos deverão ser eliminados, uma vez que estão a incorrer em custos demasiados elevados, comparando com o benefício relativo que estão a proporcionar; catorze processos deverão ser alvo de análise, para redução do seu custo; trinta e um processos deverão ser avaliados, para que se tornem mais relevantes e com maior impacto na empresa; e os restantes quarenta e três processos enquadram-se na lista dos que deverão ser mantidos, uma vez que estão a proporcionar um valor relativamente alto (i.e., o impacto que têm na empresa é relativamente elevado), e estão a incorrer em custos relativamente baixos (comparando com os restantes processos da área onde estão inseridos).

Chapter 1 - Definition of the Problem Context

The business world is a market that expands really fast. Theories/models that companies have been applying in their business strategies are constantly being updated as the market evolves. Strong competition and the enormous technology innovation, together with the demanding market that we are facing, lead companies to develop new approaches and drive them to update these new instruments of management (Kaličanin & Knežević, 2013).

In order to companies achieve business success in such a competitive environment, the priority should always be the customers' satisfaction. This implies either having lower total costs (which drives companies to compete against each other for the lowest practiced prices), or providing the customer with an exceptional level of added value, in comparison to the competition (competing for the differentiation of the products). There is also a third alternative that relies on the best combination of these two: lower costs with great level of added value (differentiation), which is known as Best Cost Strategy.

However, whatever the strategy companies consider to be the best for them, there are certain information that should always be studied and taken into account in order to the management to take the right decisions. Inaccurate information, specifically on costs, may outcome in decision-making mistakes and consequently, the loss of the competitive advantage.

According to this, companies have been perceiving that there is a growing need on finding more efficient management techniques, including those to manage costs. One of those methods is the so well-known Activity-Based Costing, which lays down on the type of management that is based on the ongoing activities of a company. Nevertheless, this model is mostly being applied on companies that produce physical goods and that have a well-defined production line. But what about service companies (namely, the Consultancy)? Is it so linear to apply it in this kind of organizations? Does it provide enough information to these companies, in order for them to ascertain about the right decisions to make? Is this analysis enough for this kind of companies?

This project aims to apply ABC model in a consulting organization and also to understand how the adaptability to this kind of companies should be performed, by having Winning Management Consulting as a pilot company.

Chapter 2 - Literature Review

As explained in the previous topic, there is a specific methodology/technique that is focused on managing the company and taking decisions based on cost management – the Activity-Based Costing model. This model is considered to be included in a particular type of management that is based on the ongoing activities of a company. Later on, other management approaches have emerged with the same principles, such as the Activity-Based Management, which was defined as a systematic method of planning, control and improvement of labor and indirect costs, being focused on the concept of "activities consume costs" (Rof & Andreica, 2011). It is also characterized by including a detailed analysis of the company in order to eliminate activities that do not increase the useful value of the product (Kapić, 2014).

The following topics aim to elucidate about the most important points regarding ABC model. In addition, after understanding the critical points of ABC and in order to furthermore improve the model, we will explore another variable that is crucial to take into account today's changing environment: the benefits.

2.1. Activity-Based Costing

Origins & Definition

The Activity-Based Costing method was originated in the U.S., in the paper entitled "The Hidden Factory", being its authors Jeffrey G. Miller and Thomas E. Vollmann, who stated that to control indirect costs it is necessary to identify the causes that generated these costs (Radu, 2013).

By definition, the ABC is a Costing method that first assigns costs to activities and then assigns them to products based on the products' consumption of activities (Lanen, Anderson, & Maher, 2011).

The following figure intends to demonstrate how the model is organized:

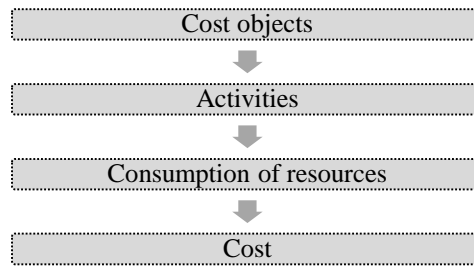


Figure 1 – General Structure of the ABC model (Noreen, Brewer, & Garrison, 2011)

The model states, as represented in the chart, that cost objects (such as products and customers) generate activities; such activities consumes resources; and the consumption of resources causes costs (Noreen et al., 2011).

It is then possible to understand that activities have a central role in all this process. It is crucial, for each product, to draw not only the list of directly consuming activities but also those generated by these activities (Rof & Andreica, 2011).

To sum up, Activity-Based Costing attempts to trace through these relationships in order to identify how products and customers affect costs (Noreen et al., 2011).

Designing an Activity-Based Costing System Successfully

According to Noreen, Brewer, & Garrison (2011), in order to successfully implement an Activity-Based Costing system, there are three essential characteristics that companies must follow: first, top managers must strongly support the model implementation, as their leadership has an active role in motivating all employees to embrace and understand the need of change. Then, the management should ensure that ABC data is linked to the evaluation and remuneration of the employees, because if they continue to be evaluated and rewarded through a non-ABC cost data, the message they will retain is that ABC is not important and they will quickly leave it. Last but not least, the company should create a cross-functional team so that it can design and properly implement the ABC system. This cross-functionality should be achieved by including representatives from each area that will be in touch with ABC data. This is an important issue as each one of these cross-functional employees own a very deep and specific knowledge of the different operations of the organization, which proves to be a critical factor for designing an effective ABC system.

Benefits & Advantages

Regarding ABC's benefits and advantages, according to Maher (1997) this method allows companies to determine the informational basis for taking action, in order to reduce resource consumption, without compromising quality and performance characteristics of the product. It also allows companies to strengthen its overall competitive advantage by providing a very reliable and accurate information to the management (Kapić, 2014).

From the perspective of Rof & Andreica (2011), it is possible to perceive another kind of benefit, as it helps on: identifying the causes of low and negative performance; eliminating the damage limits of the cost of product by separating the productive from the unproductive components of the company; identifying the real players in the overall performance of the entity; identifying the contribution of each component to the entity's business.

In conclusion, ABC can be seen as a sophisticated way of allocation overhead costs to cost objects in the sense that it is consistent with the principle of causality. This means that general costs are allocated to activities over the causes of costs (named cost drivers).

Thereafter, in order to obtain accurate information from the ABC application, it is extremely important to identify, define and classify very clearly every single activity, as these represent the components of the entire business process.

Application of the Model

The application of the model requires the company to follow five (main) steps (according to Noreen, Brewer, & Garrison (2011)). These are as follows:

- a. Define activities, activity cost pools, and activity measures

As said previously, activities play a central role in ABC model. As such, and because these will be the foundation of the system, the definition of activities proves to be the major step in implementing an ABC system. An activity is then defined by being "a set of complementary basic tasks facing an end" (Rof & Andreica, 2011: 88) or, in other words, it is any discrete task that an organization undertakes to make or deliver a product or service (Lanen et al., 2011).

Since defining activities can be a difficult and complex process, a common procedure that is followed in order to define them is making interviews in overhead departments in order to ask people to describe their major activities. As this technique may lead to a huge list of

activities, what happens is that they are usually aggregated according to their similarities (highly correlated activities are often combined).

Another concept that also needs to be defined is the Activity Cost Pool. A cost pool is defined by being the type of cost we want to assign to the cost objects (which can be products or services) (Lanen et al., 2011).

Regarding the Activity Measures, these are also known as Cost Drivers, as they are the factor that explains the cost variation, by being the activity's reference size, used for the allocation of indirect costs (Radu, 2013).

b. Assign overhead costs to activity cost pools.

In order to assign and allocate overhead costs to the activities cost pools obtained in the previous phase, it is necessary to use a technique named first-stage allocation. This tool is defined as the process of assigning functionally organized overhead costs derived from a company's general ledger to the activity cost pools.

This allocation is usually based on the results of the interviews with employees that are constantly in touch with the activities. However, it is also important to speak with the management, as it can help the ABC team on the understanding about how some indirect costs should be distributed across the activity cost pools.

c. Calculate activity rates

For this step, the ABC team should identify the total activity, for each cost pool, that would be necessary for the company to present its products or services to its customers.

Activity rates are then computed by dividing the total cost by the total activity, for every single activity.

However, there may be some outliers on the sample of activities, as to some of them may not be possible to compute its activity rate. These outliers consist of organization-sustaining costs and costs of idle capacity that should not be allocated to products/services and customers.

d. Assign overhead costs to cost objects using the activity rates and activity measures

This phase is also known as the second-stage allocation. In this step, activity rates are used to distribute the overhead costs to products/services and/or customers. Therefore, for each activity, the rate is then multiplied by the respective activity's value.

Here, there may be found some incoherence in the data, as the total amount of overhead costs assigned to products may not match the total amount of overhead costs in the ABC system. If this happens, it shall be due to the previously explained occurrence: outlier activities for which is not possible to compute activity rates, as they are not caused by products.

e. Prepare management reports

It is important to obtain reports from the ABC application, as they may be a useful tool for the management when making decisions. The most common reports are related to the product/service and customer profitability. With this kind of report, companies may channel their resources to their most profitable growth opportunities and, at the same time, highlighting products and customers that drain profits.

In practice, and in order to correctly develop this reports, it is necessary to obtain the product/service margin, which is a function of the product's sales and the direct and indirect costs caused by the product. Therefore, the company will need to gather each product's sales and direct costs, in addition to the overhead costs previously computed.

One thing that is important to keep in mind is that, for this computation it will not be possible to include the costs that are not caused by products/services. These will only be considered afterwards, in the computation of the company's net operating income.

In addition, the report may include the customers margin, i.e., how much is each customer contributing to the total profitability of the company. Therefore, if the company does this analysis for all its customers, it will be able to cultivate relationships with its most profitable customers, while taking steps to reduce the negative impact of the unprofitable ones.

The Limits of the Model

Now that we know about the steps companies should follow to successfully implement an ABC system, and all the advantages that it can provide to companies, it is wise to acknowledge that every successful model has its limits and there is, at least, one critical factor that may contribute to the failure of its implementation. This refers to the heavy volume of work in collecting the information it requires and the accuracy of the data (Rof & Andreica, 2011), as it was possible to verify from the previous topic.

2.2. Benefits Management

Measuring the Benefits

There are several authors that aim to define what a benefit is. According to Bradley (2010: 102), a benefit is an “outcome of change which is perceived as positive by a stakeholder”. From this, it becomes possible to derive the definition of benefits management, which stands for “an approach to identify, plan and manage the delivery of benefits” (Eckartz, Katsma, & Maatman, 2012: 4642).

The need of organizations to focus on these benefits has, in fact, demonstrated to be fundamental to management’s theory and practice, as the benefits management approach complements most of the common project management methodologies (Breese, 2012). However, the majority of these methodologies focus on how to comply with three parameters - time, cost and quality - instead of identifying the positive outcomes and benefits for an organization (Karamitsos, Apostolopoulos, & Bugami, 2010).

In addition, many authors have developed several theories regarding this benefits management approaches. According to Jenner (2011), there are a set of prescriptions for an appropriate benefits management that we must take into account, which are summarized into the following:

1. Ensuring that benefits claims are robust and realizable;
2. Identifying and capturing all forms of value created;
3. Realizing benefits and create value.

Nevertheless, companies do not show much concern regarding this study and proper identification of benefits when making investments, as according to Senturia, Flees, & Maceda (2008), around 70% of business projects still fail.

And it is due to this that developing business cases before making investments are considered such an important tool for companies to use nowadays. Therefore, it can be seen as the first step for developing a proper benefits management, as it allows companies to detect what is the best arrangement for an initiative to potentiate its benefits (Pereira, 2014a).

As such, not using this tool tends to lead companies to fail in the achievement of the desired benefits and consequently the creation of value, as in any investment's scope it is absolutely necessary to «measure what is relevant» (Pereira, 2014a).

Regarding the identification of benefits, previously defined as the first step for a proper benefits management, this can be analyzed in two different ways: first, qualitatively, and after that, quantitatively.

Regarding the first type, it is important to retain that every time companies decide to start a new project, they are looking for one of the following dimensions, or a combination of them: increase in revenues, cost reduction and efficiency (or sometimes, just to be in legal compliance, but in that case they are just changing their business to be in line with the law) (Pereira, 2014a).

There are several ways to achieve this three (four) benefits, and each one of them depends on the kind of strategy the company decides to follow. Regarding the increase in revenues, it can be achieved through an increase in the number of customers, by exploring new markets, by retaining the actual customers through loyalty programs, or by doing product cross or up selling. In relation to cost reduction, it can be reached either by decreasing the current costs, or by preventing an increase in the future costs. Last but not least, regarding the efficiency increase, it can be achieved by releasing human capital, who will be able to do the same with less effort (Pereira, 2014a).

In relation to the computation of the quantitative benefits, there are three steps that must be followed in order to accurately define them. These are:

- The kind of data that is necessary to obtain;
- The source of that data – where is it available and who has access to it;
- The technique that best fits the collection of the data.

Among the several techniques that may exist to collect data, these shall be selected according to the type of data (and accuracy) one wants to obtain. These may include interviews, document analysis, surveys, or any other kind the manager considers to be useful to attain the desired information (Pereira, 2014a).

In conclusion, and as stated by Robert M. Grant (2010), business is about creating value, and so the purpose of business is, in the first place, to create value for customers. After that, it becomes possible to extract some of that customer value in the form of profit,

thereby creating value for the firm. This is why it is so important nowadays to keep changing and growing the business, along with the market evolution.

Achieving the real benefits

Keeping in mind what has just been said, it is worthless to achieve a million of benefits, if to reach those we had to incur in the double of the costs. Therefore, in order to ascertain about the real value of each investment, project, or any other kind of benefits one is measuring, it is necessary to compute the net benefits (comparing those benefits to the costs they had implied).

There are several tools (indicators) that help companies on performing this comparison. The most common ones are ROI (Return on Investment) and BCR (Benefit-cost ratio), Net Present Value (NPV), Payback, among others (Pereira, 2014a). However, as this dissertation does not focus on occasional projects, the most relevant ones are the first two (ROI and BCR).

They both measure this relation between benefits and costs, although they give us results in different perspectives: on the one hand, the Return on Investment (ROI) gives us the real return of an investment/activity, in a relative way (i.e., in percentage), by comparing all the benefits the project has provided, to the investment it had required; on the other hand, the Benefit-Cost Ratio (BCR) aims to provide the real return of an investment/activity, but in absolute values, i.e., for each euro of costs, the real benefit is x euros (Pereira, 2014a).

In conclusion, the major goal for a company is then pretty simple to understand: to increase the benefits and to reduce the costs, so that the company can boost, in the end, the ROI/BCR of its activities and consequently, the company as a whole.

The next topics aim to demonstrate the application of the model in a consulting company, which is supposed to help these kind of companies on its management approaches. As such, this will have the ABC model and the benefits management as its foundation.

Chapter 3 - Research Methodology

From the previous chapter, it was possible to verify about certain points that are still missing at the Activity-Based Costing model, in order to apply it in a consulting company.

Regarding this, the main question that arises is: Can we fully apply the model to this kind of companies? The answer is no, because as we are not considering the usual goods company, in which the definition of activities and allocation of overhead costs is more straightforward, the application of the model in the Consultancy may reveal some *nuances*:

1. First, and regarding step a) from the literature review's "Application of the Model" (definition of activities), as the overhead costs in the Consultancy tend to represent the supporting processes, we will consider the areas that support the business as our main "processes" (to better adapt to the company's context, this concept will be used instead of the regular "activities"). Consequently, each main process is composed by other small processes that are related to the tasks that each area is responsible to perform. However, for the application of the ABC, only the high-level processes will be considered (as the small processes are too detailed, and it is easier for the application to consider groups of processes with the same subject).
2. Regarding step c) and d) from the same literature review's topic (calculate activity rates and assign overhead costs to cost objects, respectively), it also needs to be adapted to this project. As said previously, we will have to consider the company's supporting areas as our main processes. Therefore, the definition of the activity cost pools will be performed (with the designation of process cost pools), but not used for the application of the model, as it would be extremely difficult to get the total activity for each one of these. For this reason, activity rates will not be computed as well. Instead, the allocation of the overhead cost per "product" (in this case, it will not be a product but instead the groups of services provided by the company) will be performed by applying directly a cost object to the overhead costs (costs of the supporting processes).

Following this line of thought, this project has the main goal of responding to these gaps (by adapting and applying the ABC to a real consulting company). After verifying that this application is in fact possible, we will try to balance the costs obtained from the application of the model, with its respective benefits – from this, it becomes possible to obtain a Benefit-Cost Ratio, which will allow an analysis to the real return of each "product".

In addition, besides the application of the model, this project also aims to give a significant contribute to it, as it shall provide a complementary analysis that shall be used every time the model is applied to a consulting company.

Therefore, this secondary analysis aims to improve the efficiency of companies, by providing them a tool that will help them on the management of their secondary processes. For this second part, the analysis will encompass the cost allocation and measurement of benefits of each secondary process performed by the company. However, regarding the benefits measurement on this analysis, there is another topic mentioned in the previous chapter that needs to be adapted. This is due to the difficulty that arises on following all the steps in the achievement of the quantitative benefits, specifically mentioned on step number 2 “the source of that data – where is it available and who has access to it”, as the quantitative information of each secondary process is very difficult to obtain (such as what happens on our pilot company, as it is not available/recorded). Therefore, for this analysis we will use qualitative information instead of the quantitative one.

The following figure aims to demonstrate the differences between the Model as it is (today) and how it is meant to be (in this project), after the identified gaps are eliminated.

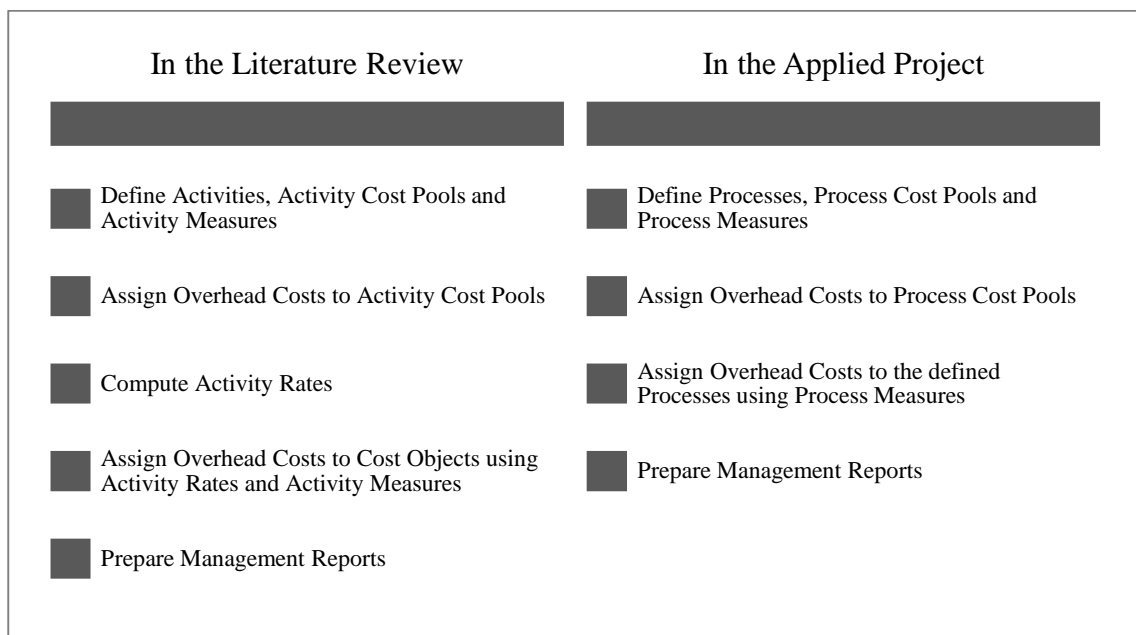


Figure 2 - The adaptation of ABC Model to a consulting company after the elimination of the identified gaps¹

¹ Source: Compiled by author

In the further analysis, we will apply the Activity-Based Costing model in a consulting company named Winning Management Consulting. As such, the key data that will be necessary for this application regards all the costs incurred by the company.

As the company has recently changed its Organizational Breakdown Structure (OBS), and considering that there may not be the necessary data by the time this research was developed, all the data that will be used in the research will be based on the previous OBS. As such, the data included in the analysis (namely costs, revenues, number of employees, among others) will have a monthly basis, which in turn will be obtained from the average of the last three months of 2014 – October, November and December.

However, before knowing the effective costs, we shall first define the “products” of the company, as all the costs will be attributed to these.

After this, we will have to study in depth and understand the processes that compose and that cut across the entire company (these are the overhead costs – that are essential for the running of the business and therefore, for the final outputs/products). These processes shall be converted into real costs, which in turn will be assigned to each one of the final products. The attribution of each overhead cost will be held according to proper cost drivers, which in turn will be defined after a discussion with the company’s expert – Winning’s CEO.

For the collection of data regarding these kind of costs, and since it is a small company and everything is well-organized, information will be obtained from several interviews with the Financial Office.

Also, in order to make the indirect costs allocation, we need to understand the whole flow of the existing supporting processes. For this, we will study and analyze Winning’s Governance Model. Later on, and after analyzing all the existing techniques, we have considered to use either the interview or the questionnaire, as this data collection is an activity that requires deep understanding of the figures and of the business itself.

In conclusion, we will use a mixture of both techniques, by using the interview to explain the participants the real goal of the research and the information we will need from them, and by using a kind of questionnaire (several templates that will be provided to the participants, asking the required information), so that the participants can fill in the templates with the necessary data without having any influence of external sources.

The choice of these techniques is due to the fact that this is a very analytical activity and, as such, we will need to use techniques that shall allow the understanding in depth of the

information provided by each participant. These interviews and forms will then be conducted with people that have the enough awareness and acknowledgement of the processes that will be analyzed in this project. The selected people will be known after discussing it with Winning's CEO, as he is the person that better knows the company and the experts of every process. As such, we will try to allocate costs in the most effective and accurate way.

After having all the indirect costs (from the supporting processes) assigned to each one of the final products, we shall ascertain about the costs that were directly incurred by each one of the considered products, in order to determine the global costs. Having these last ones defined, another interview with the financial office shall be conducted, in order to obtain data regarding the revenues.

In a second phase (after ABC is applied), we will make an analysis to the detailed processes, in order to turn the company more efficient.

Therefore, for each secondary process there will be a balance between the incurred costs and the real benefit/impact that each one of them has in the company.

For the classification of costs, we will use the information from the interviews and forms applied to each process' accountable. After ascertaining about the real costs of each secondary process, these shall be compared within themselves (each group of processes shall be analyzed separately) and translated into a scale from 0 to 1 (being 1 the most expensive one).

Regarding the measurement of the benefits, this information will be obtained by using the same methods. As the necessary information shall be qualitative, interviews and forms shall also be the best techniques to use, in order to obtain reliable information regarding the real impact of each process in the company.

This qualitative information can be resumed into a classification, in a scale from 0 to 3 (being 0 "not having any impact at all" and 3 "having a lot of impact"), of each secondary process in each of the three categories of impacts – Business Impact (Loss Margins, Loss Revenues, Loss Clients, Loss Image), Efficiency Impact (More Rework, More Scrap, More Work, More Time), Compliance Impact (Big Penalty, Penalty, Big Incongruence, Incongruence).

After collecting this data, and in order to be able to compare the benefits with the costs, these benefits/impacts shall also be translated into a scale from 0 to 1 (being 1 the most impacting process).

Having the costs and the benefits/impacts in the same unit of measure, these shall be compared, in order to verify what the real cost-benefit ratio is (for a better perception, these values will be placed in a scatter plot).

Chapter 4 - Data Collection and Analysis

4.1. Winning's Brief Presentation

As we are considering a service company, it is crucial to analyze Winning Management Consulting's Organizational Breakdown Structure in order to fully understand the workflow of the company. It relies on the principle of process' management, which means that each process has an assigned accountable that assures its good standing. In addition, this does not mean that he/she cannot take part on other processes with different functions and responsibilities (Pereira, 2014b).

Winning's OBS follows a matrix structure, being the first line of direction and corporative management functional and stable (Pereira, 2014b).

Nevertheless, there are three groups of processes at Winning (Pereira, 2014b):

- ▶ Core Business Processes, which are the set of processes which main mission is the delivery of value to clients, through the supply of services. The range of services provided by Winning can be translated into the three main competency centers that compose the company: Project Management Competency Center (PMCC), Business Analysis Competency Center (BACC) and Benefits Management Competency Center (BMCC). All the services acquired by clients are always associated to one (or more) of these three.
- ▶ Support Business Processes, which are the set of processes which main mission is the management of opportunities that exist in the market, in order to assure the business continuity. These processes are translated into a single office that is called Business Development Office (BDO).
- ▶ Support Organizational Processes, which are the set of processes which main mission is to support, facilitate and provide the necessary conditions for the course of the business. These processes include several offices, such as the Finance Office (FIN), Human Capital Office (HCO), Marketing Office (MKO), Management School Office (MS), Project Management Office (PMO), Quality and Compliance Office (QCO), Office Management (OM) General Management Office (GM) and Informatics and Communication Technologies Office (ICT).

The scope of each one of the referred offices will be explained further on.

The following figure aims to demonstrate the relation between all the offices, previously described:

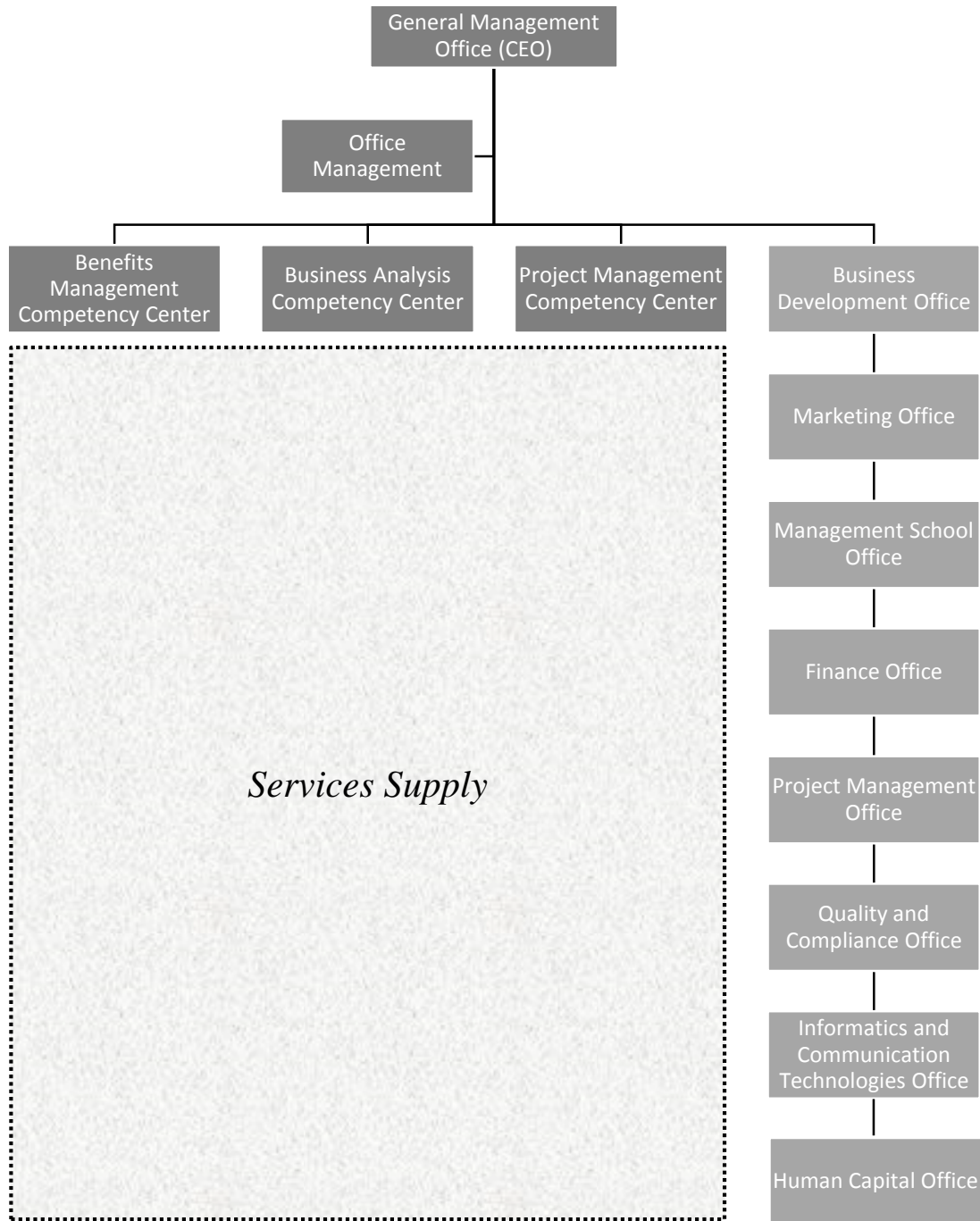


Figure 3 - Winning's Organizational Breakdown Structure²

Now that we have a general idea of what the company is and how it is composed, it becomes possible to understand the application of ABC model, such as follows.

² Source: Compiled by author

4.2. Application of the Model

Step 1 - Defining the “Products” of the Company

As we are dealing with services and not with goods, there will be a complexity on unveiling the real outputs of the company, as the projects/services that are supplied to customers are always changing and are inconsistent (and consequently, difficult to define). Having said this, and in order to simplify the complexity of the model, we will consider the three core business processes (PMCC, BACC and BMCC) as the final outputs, which comprehend all the services provided by the company to the customers.

Now, in order to understand the real costs of each Competency Center and consequently, each one's contribution to the total costs incurred by Winning, it is important to distinguish the direct from the indirect costs. As the direct costs are easier to compute, let us start with the indirect ones, by applying the ABC Model.

Step 2 - Defining the Processes (Activities)

As we already know, besides the core business processes, Winning has the support processes, which are divided into the Support Business Processes and the Support Organizational Processes.

In Winning's specific scope, these processes are the ones that support and assure the running of the main business. These are transversal to the three main competency centers as they are the ones that support and assure their continuity.

Although these processes are detailed into smaller ones in the governance model, in order to facilitate the application of the model, only the main processes will be considered.

These are as follows:

- ▶ Business Development Office (BDO) – Aims to assure the business continuity, ensuring the customers' satisfaction;
- ▶ Finance Office (FIN) – Aims to assure the management of Winning's financial resources, ensuring the financial capability for the continuity of the business;
- ▶ General Management Office (GM) – Aims to assure the correct management of the company;
- ▶ Human Capital Office (HCO) – Aims to assure the performance of all the activities that are related to the human resources of the company;

- ▶ Informatics and Communication Technology Office (ICT) – Aims to assure the management of all the activities that are related to the technological resources of the company;
- ▶ Management School Office (MS) – Aims to assure the functioning of the activities that are related to the training Winning provides to its clients and to its own employees;
- ▶ Office Management (OM) – Aims to assure the management of Winning’s physical spaces (the office);
- ▶ Project Management Office (PMO) – Aims to assure the management of all the projects that are being performed/services that are being supplied;
- ▶ Marketing Office (MKO) – Aims to assure the performance of all the activities that are related to marketing;
- ▶ Quality and Compliance Office (QCO) – Aims to assure the audit of internal procedures, in order to establish a certain level of quality.

Nevertheless, the detailing of all these activities will be performed furthermore.

Step 3 - Data Collection (Indirect Costs)

In order to successfully allocate the overhead costs incurred by Winning into the main three competency centers, it is necessary to make the already mentioned first-stage allocation.

To do this, and in order to better understand the numbers, these overhead costs were classified into different groups (process cost pools). Having said this, these were divided into the following six cost sources:

- ▶ Staff Costs, which are translated into the wages of the employees that work for each process. These costs will also include the cost of computers and cellphones, as these are costs that are specifically intended for employees. For the computer, we use will the same depreciation rate used by Winning, which according to the ICT accountable corresponds to 25% a year (which translates into a useful life of 4 years). From this, we can ascertain about the monthly costs (by dividing the entire cost of the computer by 48 months). Regarding the cellphone, every employee are entitled to have one. However, the *plafond* of each one depends on the role of the employee on the company. These were considered according to the employees that belong to each supporting process;

- ▶ Material Costs, which are the physical materials that are used/consumed by the supporting processes;
- ▶ Renting Costs, which are the costs incurred by the supporting processes, in case they have equipment or any other properties that are being rented;
- ▶ Suppliers Costs, which are translated into the payment to suppliers (from several sources);
- ▶ Licenses, which are the costs of external authorizations, necessary to the course of the processes;
- ▶ Other, which are all the other costs that do not fit in the previous groups.

In order to accurately ascertain about the costs of each one of the supporting processes, the collection of data was conducted by gathering the costs of three consecutive months (last three months of 2014 – October, November and December), and then a monthly average was made (for more details, see annex A).

It is also important to refer that, as said previously, employees can take part on different processes at the same time. In Winning’s particular case, this means that some employees that are working on projects may also work on specific supporting processes. In fact, this means that staff costs collected for these processes will depend on the time each employee dedicates to these supporting processes. These values were obtained after knowing the employees that work for each process, and then discussing with them the percentage of his/her time spent with these processes, per month. After knowing these percentages, each wage was assigned to the respective process, in the indicated proportion. These percentages can be found in annex B.

Having said this, and after collecting the remaining data along with the finance office, all this information was organized, in order to demonstrate the average costs incurred by each one of the previously described processes. The information was organized as displayed next:

Table 1 - Monthly Costs per Supporting Process and Cost Source

		Cost Source						TOTAL
		Staff	Materials	Renting	Suppliers	Licenses	Other	
Supporting Processes	BDO	7.101,44€	34,82€	-	-	-	-	7.136,25€
	FIN	1.557,12€	-	-	375,00€	-	-	1.932,12€
	GM	1.733,43€	-	-	-	-	163,66€	1.897,09€
	HCO	3.300,66€	242,56€	-	379,40€	-	2.151,65€	6.074,27€
	ICT	1.304,51€	-	-	152,77€	316,67€	-	1.773,95€

	MS	1.034,84€	290,07€	-	7.006,45€	-	-	8.331,35€
	OM	232,03€	157,05€	4.910,17€	871,04€	-	-	6.170,29€
	PMO	834,27€	-	-	-	-	-	834,27€
	MKO	1.375,04€	17,41€	-	835,00€	38,00€	-	2.265,44€
	QCO	161,65€	-	-	-	-	-	161,65€

Source: Compiled by author

Step 4 – Choosing a proper cost driver

Having the previous data already well-defined, it is now necessary to properly allocate all these costs to the three main competency centers.

As this is a service analysis, it is very difficult to accurately say how many hours a person or a machine is dedicated to perform an activity. Therefore, the activity rates cannot be computed as it is described in the theory.

In order to distribute all these costs over the main outputs of the company, we will choose a proper cost driver, for each process. These should be directly related to the process and will help on directing the cost to its correct source, in the right proportion.

The cost driver that will be used in each process was discussed with the company's expert, and it was concluded to be as follows:

- For the Business Development Office, we will use the global revenues, as this process has its main goal of increasing the revenues for each competency center, and so the working hours spent on exploring opportunities for each CC are directly related to the amount of revenues earned by each.
- For the Finance Office, we will use as the global revenues, the working time spent on each CC depends on the number of projects and consequently, the global revenues of each.
- For the General Management Office, we will use the global revenues, as this process involves a constant looking for new market gaps and developing new relationships with clients, and so depending on the spent time on each center the more revenues it will bring to the company.
- For the Human Capital Office, we will use the total number of employees, as the time spent on this process depends on the people that belong to each center.
- For the Informatics and Communications Technology Office, we will use the total number of employees, as the work required on this process is more or less demanding depending on the number of employees on each CC.

- For the Management School Office, we will use the total training revenues, as the work demanded on this process depends directly on the revenues earned by this kind of services on each CC.
- For the Office Management, we will use the total number of employees, as the costs incurred by the company regarding the office are directly related to the people that are not allocated to clients and therefore are working in the headquarters of the company. As the people on the office are constantly changing (depending on the projects that are occurring), we cannot assure about the percentage of people from PMCC, BACC or BMCC that are using the office. Having said this, we will use the total number of employees on each center to make an interpolation.
- For the Project Management Office we will use the total number of employees, as the work demanded on these processes depends directly on the number of employees on each center.
- For the Marketing Office we will use the global revenues, as the costs incurred by these processes have the main goal of increasing the revenues of each center.
- For the Quality and Compliance Office we will use the total number of employees, as these control activities will be more or less demanding, depending on the number of employees on each center.

In conclusion, we will use three different types of cost drivers: total number of employees, global revenues and revenues from training.

Step 5 – Allocating the Indirect Costs to the Main Competency Centers

Having the cost drivers defined for each secondary process, it becomes possible to distribute the total costs of each one of these (described in Step 3) among the three main competency centers of the company.

In order to make this distribution, we will need to know the total number of employees in each center, the global revenues earned by each center, and the training revenues earned by each center.

Regarding the first one (total number of employees), again a previous analysis was made, in which we could verify about the number of employees in each CC for the last three months of 2014. After that, a monthly average was made (rounded to units).

In relation to the number of people in the Benefits Management Competency Center (BMCC), there were three people in October, November and December. Therefore, for the center of Benefits Management there was an average of three people.

In relation to the number of people in the Business Analysis Competency Center (BACC), there were thirty-two people on October and November and thirty-four people on December, which brings us to the rounded average of thirty-three people on this center.

In relation to the number of people in the Project Management Competency Center (PMCC), there were forty-four people in October and forty-three people in November and December, which brings us to the rounded average of forty-three people on this center.

In conclusion, we will consider further on:

- Three (3) people in the Benefits Management Competency Center
- Thirty-three (33) people in the Business Analysis Competency Center
- Forty-Three (43) people in the Project Management Competency Center

As we have seen before, the processes that are depending on this cost driver are: Human Capital Office, Informatics and Communications Technologies Office, Office Management, Project Management Office and Quality and Compliance Office.

The cost of each process was then allocated to the three center in different proportions (as one can see in Table 2). For the computation of each one, the following formula was used:

$$(x) CC = \frac{\text{Total Process Cost} * \text{nr.employees in the (x) CC}}{\text{Total nr.of employees}} \quad (1)$$

The results for each process were as follows:

Table 2 - Cost Allocation (among the three main Competency Centers) of the Processes that use the number of employees as its cost driver

	Benefits Management	Business Analysis	Project Management	TOTAL
HCO	230,67 €	2.537,35 €	3.306,25 €	6.074,27 €
ICT	67,37 €	741,02 €	965,57 €	1.773,96 €
OM	234,31 €	2.577,46 €	3.358,51 €	6.170,28 €
PMO	31,68 €	348,49 €	454,09 €	834,26 €
QCO	6,14 €	67,53 €	87,99 €	161,66 €

Source: Compiled by author

Regarding now the second cost driver (global revenues), this information was provided by the Finance Office, which allowed us to understand the global revenues earned by each

one of the Competency Centers. The total monthly revenues (in average, from all the supplied services) were the following³:

- ▶ Project Management Competency Center – 170.394,33 €
- ▶ Business Analysis Competency Center – 78.288,00 €
- ▶ Business Case Competency Center – 15.042,33 €

As we have seen before, the processes that are depending on this cost driver are: Business Development Office, Finance Office, General Management Office and Marketing Office.

Such as the previous cost driver, the cost of each one of these processes was then allocated to the three centers (as one can see in Table 3).

For these computations, the following formula was used:

$$(x) CC = \frac{\text{Total Process Cost} * \text{revenues in the (x) CC}}{\text{Global revenues in the three centers}} \quad (2)$$

The results for each process were as follows:

Table 3 - Cost Allocation (among the three main Competency Centers) of the Processes that use the global revenues as its cost driver

	Benefits Management	Business Analysis	Project Management	TOTAL
BDO	407,04 €	2.118,43 €	4.610,78 €	7.136,25 €
FIN	110,20 €	573,56 €	1.248,36 €	1.932,12 €
GM	108,21 €	563,16 €	1.225,72 €	1.897,09 €
MKO	129,22 €	672,51 €	1.463,72 €	2.265,44 €

Source: Compiled by author

Finally, regarding the third cost driver (training revenues), this information was also provided by the Finance Office, and its computation is very similar to the previous one.

Summing up, the monthly training revenues (in average) were as follows⁴:

- ▶ Project Management Competency Center – 31.118,00 €
- ▶ Business Analysis Competency Center – 4.300,00 €
- ▶ Business Case Competency Center – 0,00 €

As we have seen before, the only process that is depending on this cost driver is the Management School Office.

³ For more details, see annex C.

⁴ For more details, see annex D.

Therefore, and similarly to the other two cost drivers, the cost of this process was allocated to the three centers, as one can see in Table 4.

The formula that was used to make this distribution was the following:

$$(x) CC = \frac{\text{Total Process Cost} * \text{training revenues in the (x) CC}}{\text{Total training revenues}} \quad (3)$$

After applying this formula in the cost of the Management School Office, we could obtain the following:

Table 4 - Cost Allocation (among the three main Competency Centers) of the Processes that use the training revenues as its cost driver

	Benefits Management	Business Analysis	Project Management	TOTAL
MS	0,00 €	1.011,49 €	7.319,87 €	8.331,35 €

Source: Compiled by author

In conclusion, so far we have the following costs allocated to each Competency Center:

- Benefits Management Competency Center: 1.324,83 €
(230,67 + 67,37 + 234,31 + 31,68 + 6,14 + 407,04 + 110,20 + 108,21 + 129,22 + 0,00)
- Business Analysis Competency Center: 11.211,00 €
(2.537,35 + 741,02 + 2.577,46 + 348,49 + 67,53 + 2.118,43 + 573,56 + 563,16 + 672,51 + 1.011,49)
- Project Management Competency Center: 24.040,86 €
(3.306,25 + 965,57 + 3.358,51 + 454,09 + 87,99 + 4.610,78 + 1.248,36 + 1.225,72 + 1.463,72 + 7.319,87)

Step 6 – Ascertainning about the Direct Costs

Now that we have the indirect costs distributed among the three main competency centers, it is time to ascertain about the direct costs, incurred by each one of these.

Again, from the information provided by the Finance Office, it was possible to identify each one of the direct costs, incurred by each center.

To start, the kind of costs that naturally comes first to our minds in a service company, and that are essential for the running of the business, are the ones related to the human resources. Therefore, in order to ascertain about the staff costs of each competency center, we need to verify the costs related to the employees that are 100% allocated to each center, plus the employees that are not totally allocated to that center (as they are taking part on other supporting processes). For these last ones (i.e., the employees that were already

considered in the Indirect Costs), we will not consider his/her entire cost but instead, the remaining percentage that was not considered in the supporting processes⁵.

Similar to what has been described previously in the allocation of the Indirect Costs, the cost of each employee includes the monthly wage, plus all the costs that are directly related to him/her (namely, computer and cellphone).

Having said this, the costs of staff for each competency center are as follows:

Table 5 - Staff Costs directly related to each Competency Center

	Benefits Management	Business Analysis	Project Management	TOTAL
Staff Costs	9.758,38€	68.008,19€	105.723,40€	183.412,00€

Source: Compiled by author

Apart from the human resources, all the three main competency centers may incur in several kinds of costs that are necessary for the running and/or growing of the business. These may include subsistence allowances, employees' certifications, among others.

After collecting all these remaining costs along with the Finance Office (again, from the last three months of 2014), we were able to make a monthly average. The amounts are displayed in the following table⁶.

Table 6 - Other Direct Costs directly related to each Competency Center

	Benefits Management	Business Analysis	Project Management	TOTAL
Other Direct Costs	437,90€	636,14€	1.777,18€	2.851,22€

Source: Compiled by author

⁵ These percentages may be found on the table of annex B, column "Main CC".

⁶ For more details, see annex F.

Step 7 – Ascertaining about the Real Total Costs of each Competency Center

Now that we are aware of all the costs incurred by each competency center, we may compute the total ones. Summing up these last values to the ones we had, we can ascertain the following:

- Benefits Management Competency Center:
 $1.324,83 \text{ €} + 9.758,38 \text{ €} + 437,90 \text{ €} = 11.521,11 \text{ €}$
- Business Analysis Competency Center:
 $11.211,00 \text{ €} + 68.008,19 \text{ €} + 636,14 \text{ €} = 79.855,33 \text{ €}$
- Project Management Competency Center:
 $24.040,86 \text{ €} + 105.723,40 \text{ €} + 1.777,18 \text{ €} = 131.541,44 \text{ €}$

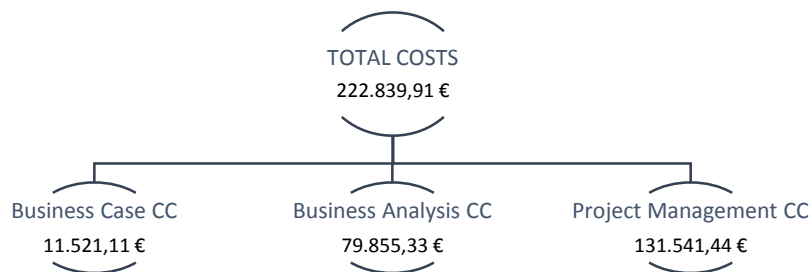


Figure 4 - Total Costs incurred by each Competency Center, in absolute values⁷

Translating these into percentages, we are able to understand the contribution of each competency center for the total costs of the company:



Figure 5 - Contribution of each Competency Center for the Total Incurred Costs, in percentage⁸

Now that we have the contribution of each competency center for the global costs of the company, it becomes possible to compare these with the revenues earned by each.

⁷ Source: Compiled by author

⁸ Source: idem

In order to perform this comparison, and as the company is in its full course of activity, we will use the Benefit-Cost Ratio (BCR). The computation of this ratio will allow us to put both revenues and costs in one single balance and ascertain about the relative weight of each one. In addition, this ratio will give us the total return (provided by each center), by each invested euro.

It is computed through the following formula:

$$BCR(x) = \frac{Revenues}{Costs} \quad (4)$$

From the application of the previous formula to the three centers, it was possible to ascertain the following:

- ▶ $BCR (PMCC) = \frac{170.394,33\text{€}}{131.541,44\text{€}} = 1,30\text{€}$
- ▶ $BCR (BACC) = \frac{78.288,00\text{€}}{79.855,33\text{€}} = 0,98\text{€}$
- ▶ $BCR (BMCC) = \frac{15.042,33\text{€}}{11.521,11\text{€}} = 1,31\text{€}$

In conclusion:

- ▶ The center of Project Management is providing Winning a positive return, as the benefits outweigh the costs. In practice, this means that for every spent euro, the company is getting 1,30 euros, which translates into a return of 30 cents per euro (30% return);
- ▶ The center of Business Analysis is providing Winning a negative return, as the costs outweigh the benefits. In practice, this means that for every spent euro, the company is getting 0,98 euros, which translates into a loss of 2 cents per euro (2% loss). This is the center with the worst results, not only because it got the worst return, but also because its contribution is negative. Therefore, the company should reconsider about maintaining this Competency Center.
- ▶ The center of Benefits Management is providing Winning a positive return, similar to the center of Project Management, as the benefits also outweigh the costs. In practice, for every spent euro in this center, Winning is obtaining 1,31 euros, which can be translated into a return of 31 cents per each invested euro (31% return). This center, despite its low revenues, is the one that is providing the best results for Winning, as it is spending much less than its earned revenues, which makes the ratio going up.

4.3. Complementary Analysis

Having the ABC model implemented, Winning can now understand about the real contribution of each Competency Center, and make the proper decisions regarding it.

However, in order to turn the running of the business even more efficient, we shall make a complementary analysis regarding all the company's departments. This shall include decision-making processes regarding the supporting areas that are transversal to the whole company and are necessary for the running of the business.

The analysis will try to balance the costs incurred by each secondary process, with the impact that each one of them has on the company.

To do this, we shall first decompose the supporting processes into more detailed ones, and ascertain about the performance of each one of them, so that Winning can act upon the most critical ones. As such, we will be able to analyze and to act on each one of the processes, by categorizing these into:

- ▶ the ones that should be maintain (i.e., that are creating effective value for the company);
- ▶ the ones that should be removed (i.e., that are not creating any value at all);
- ▶ the ones that should be rethought (i.e., they are not bad enough to remove, but should be improved instead – whether because they are creating value but incurring in great costs or despite they are not incurring in great costs, they are not creating as much value as they could/should. The alternatives for these process may be their evaluation or cost reduction.)

For this, we will need to recap the supporting processes that were already used in the ABC model, as they will be center of the following analysis: Business Development Office, Informatics and Communication Technologies Office, Management School Office, Finance Office, Office Management, Quality and Compliance Office, General Management Office, Marketing Office, Project Management Office and Human Capital Office.

Each one of these processes are detailed in the governance model of the company, as one can see in the following table:

Table 7 - Description of the processes that are executed by each supporting area

<p><u>Business Development Office</u></p> <ul style="list-style-type: none"> ▶ To Communicate Contracts Awards ▶ To Develop Business Prospecting ▶ To Manage the Installed Basis ▶ To Report the Commercial Action Plan ▶ To Draw up Proposals ▶ To Manage the Consultant Business Plan ▶ To Assess Client's Satisfaction ▶ To Make the Follow Up of the Commercial Action Plan 	<p><u>Informatics and Communication Technologies</u></p> <ul style="list-style-type: none"> ▶ To Assure Files' Nomenclature ▶ To Assure the Desktop Background ▶ To Manage the Electronic Communication Model ▶ To Acquire Technological Material ▶ To Manage EGOI accesses ▶ To Manage Moodle Accesses ▶ To Manage the Intranet and ICT's Equipment Accesses ▶ To Assure the Initial Letters of each Employee
<p><u>Management School Office</u></p> <ul style="list-style-type: none"> ▶ To Plan and Manage Training ▶ To Issue Training Certificates ▶ To Prepare Training Sessions ▶ To Update the Training Brochure ▶ To Prepare the Training Logistics ▶ To Manage the Training Material Orders ▶ To Manage the Training's Closing and Assessment ▶ To Manage the Training's Knowledge Base ▶ To Assess Trainers ▶ To Manage Certificates' Maintenance ▶ To Assure DGERT Certification 	<p><u>Finance Office</u></p> <ul style="list-style-type: none"> ▶ To Manage the Monthly Billing ▶ To Manage the Order Forms ▶ To Manage Purchases and Expenditures ▶ To Manage the Payroll Processing ▶ To Manage Payments to Government and Suppliers ▶ To Manage Collections ▶ To Make the Daily Finance Report ▶ To Register and Check the Monthly Financial Information ▶ To Manage the Payment of Food Allowance ▶ To Check the Employees' Monthly Costs
<p><u>Office Management</u></p> <ul style="list-style-type: none"> ▶ To Manage Work in the "Open Space" ▶ To Manage the Office's Cleaning ▶ To Manage Mailings ▶ To Manage the Office Material Stock ▶ To Manage the Opening and Closing of the Office ▶ To Manage the Relationship with the Landlord ▶ To Manage the Arrangement of the Office's Spaces ▶ To Manage the Office's Safety ▶ To Manage Suppliers 	<p><u>Quality and Compliance Office</u></p> <ul style="list-style-type: none"> ▶ To Assure Documents' Control ▶ To Assure the Control of Records ▶ To Manage the Internal Audit ▶ To Assure the Non-Conformities' Control ▶ To Manage Corrective Actions ▶ To Manage Preventive Actions ▶ To Manage the Elaboration of Procedures ▶ To Assure the Good Practices in Emails ▶ To Assure Quality and Accurateness in the Writing Process ▶ To Assure the Good Practices in the Scheduling and Running of Meetings
<p><u>General Management Office</u></p> <ul style="list-style-type: none"> ▶ To Assign Roles ▶ To Assure the Process Improvement Plan ▶ To Assure the Consolidated Business Plan ▶ To Define the Business Strategy ▶ To Create New Business Areas ▶ To Redefine the Governance Model ▶ To Stablish Business/Technical Partnerships 	<p><u>Marketing Office</u></p> <ul style="list-style-type: none"> ▶ To Update the EGOI ▶ To Update the Website ▶ To Manage the Use of the Corporative Image

<u>Human Capital Office</u>	<u>Project Management Office</u>
<ul style="list-style-type: none"> ▶ To Assure the Employees' Schedule (Entry/Exit) ▶ To Manage Absences ▶ To Manage each Employee's Objectives Form ▶ To Assure the Monthly Performance Appraisal ▶ To Plan and Manage Holidays ▶ To Manage the Entry and Exit of Employees ▶ To Assure the Good Practices of the Dress Code ▶ To Manage the Use of Headphones ▶ To Manage the Candidates Database ▶ To Recruit Employees ▶ To Select Employees ▶ To Look for Profiles ▶ To Hire Employees ▶ To Update the Recruitment Action Plan ▶ To Communicate Opportunities, Articles and Innovations ▶ To Assure Team Building Activities 	<ul style="list-style-type: none"> ▶ To Assure the Integrated Weekly Planning ▶ To Assure the Status Report ▶ To Assure the Timesheet's Filling in and Approval ▶ To Assure the Compliance Report ▶ To Assure the Tailoring of Internal Methodology of Project Management ▶ To Assure the Physical Progress per Type of Service ▶ To Manage Change Requests ▶ To Assure Project Charters ▶ To Assure the Planning's Quality Control ▶ To Assure the Dashboard Portfolio ▶ To Assure the Project Plan ▶ To Train Users ▶ To Support EPM Accesses ▶ To Manage EPM's Configurations ▶ To Manage EPM Accesses

Source: Compiled by author

After this, each group of processes was discussed with the respective accountable, in order to better understand the distribution of costs, as well as the importance of each one of them. However, during this discussion it was possible to understand that some processes were missing the Governance Model and some were outdated, as they were not being executed anymore. Due to this, the previous list has already considered these changes:

- ▶ The blue processes are the new processes that have been added to the list;
- ▶ The red processes are the ones that have been eliminated, as they were outdated;
- ▶ The black processes are the ones that were not changed at all.

Therefore, only the blue and the black ones were considered in the analysis.

Nevertheless, it will split into three different stages:

- ▶ Cost analysis, in which we will allocate the costs incurred by each area, per each specific process;
- ▶ The benefits measurement, in which we will understand the real value obtained from each specific process.

In both of these we will consult the accountable of each process to obtain the qualitative information we need. In relation to the first topic, this qualitative information will help us on distributing the real cost per each specific process. Regarding the second topic, as the quantitative classification of benefits is really difficult to get (at least accurate results), the

analysis will instead use the qualitative information provided by each accountable, to ascertain about the importance of each process for the running of the business and therefore, to verify the indispensability of each one. In other words, this benefits measurement translates the real impact of the process on the company.

- ▶ The combination of these last two (by performing a Benefit-Cost Analysis), in order to come up with a conclusion regarding each one of the processes (which ones that should be maintained, rethought or eliminated).

The following tables and respective explanations aim to follow these three steps, for each supporting area:

Business Development Office

After the allocation of costs and classification of impacts regarding each specific process (by the BDO's accountable), it was possible to obtain the following table:

Table 8 - Cost and Impact Ranks, regarding BDO area⁹

		Costs (*)			Benefits/Impacts (**)		
		TOTAL Cost	Process Cost Rank	Cost Norm Scale	Process Impact Rank	Impact Norm Scale	
Processes	Proc. 1	To Communicate Contracts Awards	71,01 €	7°	0,02	8°	0,33
	Proc. 2	To Develop the Business Prospecting	3.230,46 €	1°	1,00	1°	1,00
	Proc. 3	To Manage the Installed Basis	2.130,43 €	2°	0,66	1°	1,00
	Proc. 4	To Report the Commercial Action Plan	355,07 €	4°	0,11	6°	0,63
	Proc. 5	To Draw up Proposals	710,14 €	3°	0,22	1°	1,00
	Proc. 6	To Manage the Consultant Business Plan	355,07 €	4°	0,11	7°	0,54
	Proc. 7	To Assess Clients' Satisfaction	213,04 €	6°	0,07	5°	0,72
	Proc. 8	To Make the Follow Up of the Commercial Action Plan	71,01 €	7°	0,02	4°	0,78
			7.136,25 €				

Source: Compiled by author

▶ Costs

According to the table above, one can see that the processes that consume most costs in the BDO process are the developing of the business prospecting and the management of the installed basis, as they are expending 3.230,46€ and 2.130,43€, respectively.

The cheapest processes are those that are consuming 71,01€, which are the communication of contracts awards and making the follow up of the Commercial Action Plan". The remaining processes are costing much less than the most expensive ones, but much more than the cheapest ones, by going from 213,04€ to 710,14€.

⁹ (*) For more details regarding the costs classification, see annex G - Table 38.

(**) For more details regarding the benefits classification, see annex G - Table 39

► Benefits/Impacts

Regarding the benefits that each process is bringing to the company, one can also see that there are three processes that are classified with the highest impact. These are the “Developing of the Business Prospecting”, the “Management of the Installed Basis” and the “Drawing up of Proposals” (Process 2, 3 and 5, respectively). On the opposite side, it is possible to see that the communication of contracts awards (Process 1) is the process that has the less impact on the company.

► Cost/Benefit Analysis

As it is possible to see from the previous table, we may now compare both costs and benefits, as they are measured in the same unit. Therefore, by comparing the columns “Cost Norm Scale” and “Impact Norm Scale” it was possible to achieve the following graph:

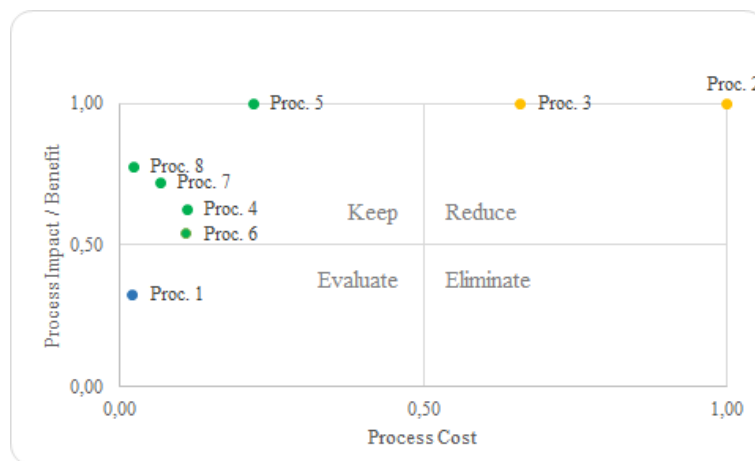


Figure 6 - Categorization of each BDO's process according to its cost norm scale and impact norm scale¹⁰

As one may see in the previous figure, any process from this supporting area should be eliminated.

On the “Evaluate” category there is only Process 1, due to its low impact on the running of the business. Therefore, this process should be rethought, in order to make it more valuable to the company.

On the “Reduce” category there are Process 2 and Process 3. This means that, for these two processes, Winning should reconsider about the costs that these are incurring, as they may be excessive in relation to the impact they have in the company.

¹⁰ Source: Compiled by author

The remaining processes (Process 4, 5, 6, 7 and 8) are classified in the “Keep” category. This means that all of these (some more than others) are incurring in reasonable costs, and providing considerable value for the company.

Finance Office

After the allocation of costs and classification of impacts regarding each specific process (by the Finance’s accountable), it was possible to obtain the following table:

Table 9 - Cost and Impact Ranks, regarding FIN area¹¹

		Costs (*)			Benefits/Impacts (**)		
		TOTAL Cost	Process Cost Rank	Cost Norm Scale	Process Impact Rank	Impact Norm Scale	
Processes	Proc. 1	To Manage the Monthly Billing	498,92 €	2°	0,68	1°	1,00
	Proc. 2	To Manage the Order Forms	77,86 €	6°	0,11	4°	0,52
	Proc. 3	To Manage Purchases and Expenditures	62,28 €	7°	0,09	6°	0,22
	Proc. 4	To Manage the Payroll Processing	732,49 €	1°	1,00	3°	0,59
	Proc. 5	To Manage Payments to Government and Suppliers	15,57 €	8°	0,02	7°	0,18
	Proc. 6	To Manage Collections	155,71 €	4°	0,21	2°	0,79
	Proc. 7	To Make the Daily Finance Report	155,71 €	4°	0,21	5°	0,33
	Proc. 8	To Register and Check the Monthly Financial Information	233,57 €	3°	0,32	8°	0,15
		To Manage the Payment of Food Allowance					
		To Check the Employees' Monthly Costs					
			1.932,12 €				

Source: Compiled by author

► Costs

Regarding the initial list, one can see the last two processes were eliminated (the management of the payment of food allowance and the checking of the employees’ monthly costs. This was due to the fact that, according to the finance expert, they were just a part of a major process (Process 4 – management of the payroll processing). Therefore, it makes no sense to keep these two apart from the referred process. Nonetheless, these were then eliminated from the list and shall be considered in the “Manage the Payroll Processing”, for the further analysis.

Nevertheless, and according to the table above, the most expensive process in the Finance Office is the management of the payroll processing, achieving the total cost of 732,49€. On the opposite side, there is Process 5 (the management of the payments to governments and suppliers), by only incurring in 15,57€ per month.

¹¹ (*) For more details regarding the costs classification, see annex H - Table 40.

(**) For more details regarding the benefits classification, see annex H - Table 41

The remaining processes are incurring in costs from 62,28€ to 498,92€.

▶ Benefits/Impacts

As one may see in the previous table, the process with the highest impact in the company, within this supporting area, is the management of the monthly billing.

On the opposite side, the process with the lowest impact is Process 8 (the register and checking of the monthly financial information).

▶ Cost/Benefit Analysis

As it is possible to see from the previous table, we may now compare both costs and benefits, as they are measured in the same unit. Therefore, by comparing the columns “Cost Norm Scale” and “Impact Norm Scale” it was possible to achieve the following figure:

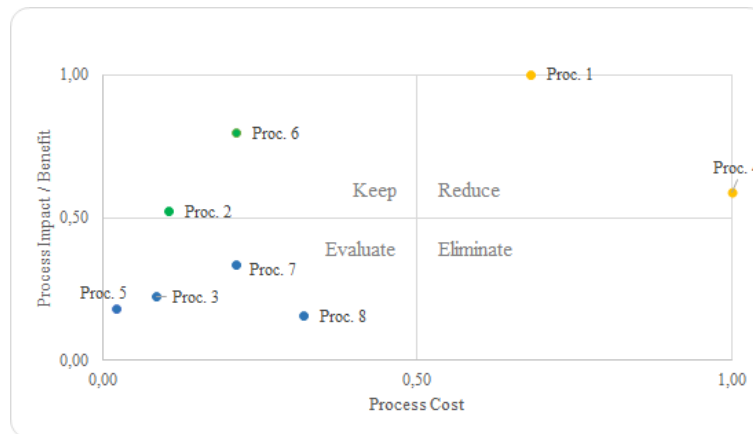


Figure 7 - Categorization of each FIN's process according to its cost norm scale and impact norm scale¹²

From the figure above, it is possible to see that the majority of the processes are concentrated in “Evaluate” quadrant (with four processes out of eight), while the “Keep” and “Reduce” quadrants only have two processes each. From the outset, it is also possible to conclude that it is not necessary to eliminate processes.

Regarding the “Reduce” category, we have Process 1 and 4. Accordingly, these processes should be adjusted, as there may be other ways to reduce the costs being incurred by these two, especially on Process 4, as it is the most expensive one.

¹² Source: Compiled by author

On the “Keep” category there are Process 2 and Process 6, which means that these two are the ones that should be maintained, as they are incurring in reasonable costs and considerable benefits (i.e., the impact on the company is relatively high).

On the “Evaluate” category there are the remaining processes (Process 3, 5, 7 and 8), which means that these are the ones that should be reevaluated, in order to turn their impact more remarkable in the company.

General Management Office

After the allocation of costs and classification of impacts regarding each specific process (by the General Management’s accountable), it was possible to obtain the following table:

Table 10 - Cost and Impact Ranks, regarding GM area¹³

			Costs (*)			Benefits/Impacts (**)	
			TOTAL Cost	Process Cost Rank	Cost Norm Scale	Process Impact Rank	Impact Norm Scale
Processes	Proc. 1	To Assign Roles	86,67 €	5º	0,15	4º	0,25
	Proc. 2	To Assure the Process Improvement Plan	346,69 €	2º	0,58	3º	0,46
	Proc. 3	To Assure the Consolidated Business Plan	346,69 €	2º	0,58	2º	0,54
	Proc. 4	To Define the Business Strategy	597,02 €	1º	1,00	1º	1,00
	Proc. 5	To Create New Business Areas	86,67 €	5º	0,15	6º	0,21
	Proc. 6	To Redefine the Governance Model	346,69 €	2º	0,58	4º	0,25
	Proc. 7	To Stablish Business/Technical Partnerships	86,67 €	5º	0,15	7º	0,16
			1.897,09 €				

Source: Compiled by author

► Costs

According to the information above, the distribution of costs is clear: there is one process that costs the most, three processes that are the cheapest ones and other three that are in the middle of these two.

On the one hand, one can see that the most expensive process is the definition of the business strategy, by incurring in 597,02€, per month. On the other hand, the cheapest processes are incurring in 87,67€ each, which translates into 15% of the most expensive process. These are the assignment of roles, the stablishing of business/technical partnerships and the creation of new business areas. The remaining processes (Process 2, 3 and 6) are all costing the same, by incurring in 346,69€ each. These are the assurance of

¹³ (*) For more details regarding the costs classification, see annex I - Table 42.

(**) For more details regarding the benefits classification, see annex I - Table 43

the process improvement plan, the assurance of the consolidated business plan, and the redefinition of the governance model.

▶ Benefits/Impacts

Regarding the benefits, it is possible to see that the process with the highest impact on the company is Process 4 (definition of the business strategy).

On the other hand, the Stablishing of Business/Technical Partnerships (Process 7) is the one with the lowest impact on the company.

▶ Cost/Benefit Analysis

As it is possible to see from the previous table, we may now compare both costs and benefits, as they are measured in the same unit. Therefore, by comparing the columns “Cost Norm Scale” and “Impact Norm Scale” it was possible to achieve the following figure:

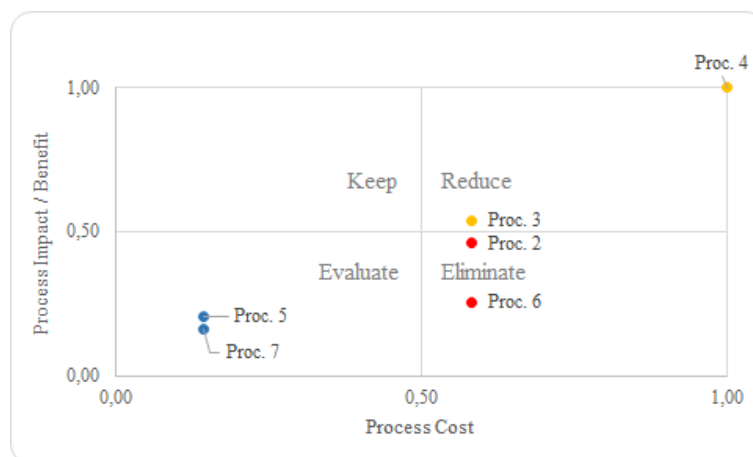


Figure 8 - Categorization of each GM's process according to its cost norm scale and impact norm scale¹⁴

As one can see from the previous figure, this Office does not have any process that should clearly be maintained. Therefore, all the existing processes are classified in the categories of “Evaluate”, “Reduce” and “Eliminate”.

Regarding the “Eliminate” category, it is possible to see that Processes 2 and 6 are clearly the ones that should be removed, as they are incurring in the highest costs, and providing the lowest value (as they have the lowest impact on the company).

¹⁴ Source: Compiled by author

On the “Reduce” category there are Process 3 and 4, as they are providing a considerable value, but may be incurring in excessive costs, comparing to the rest of the processes (especially Process 4, as it is the most expensive one).

Finally, regarding the “Evaluate” category, it is also possible to verify that Process 1, 5 and 7 are the ones that should be reevaluated, as they are incurring in reasonable costs (also comparing to the remaining processes in this Office), but may not be providing the necessary value (as their impact on the company is relatively low).

Human Capital Office

After the allocation of costs and classification of impacts regarding each specific process (by the HCO’s accountable), it was possible to obtain the following table:

Table 11 - Cost and Impact Ranks, regarding HCO area¹⁵

		Costs (*)			Benefits/Impacts (**)		
		TOTAL Cost	Process Cost Rank	Cost Norm Scale	Process Impact Rank	Impact Norm Scale	
Processes	Proc. 1	To Assure the Employees' Schedule (Entry/Exit)	33,01 €	10°	0,01	12°	0,28
	Proc. 2	To Manage Absences	33,01 €	10°	0,01	11°	0,34
	Proc. 3	To Manage each Employee's Objectives Form	99,02 €	8°	0,03	10°	0,38
	Proc. 4	To Assure the Monthly Performance Appraisal	660,13 €	3°	0,23	6°	0,47
	Proc. 5	To Plan and Manage Holidays	66,01 €	9°	0,02	4°	0,68
	Proc. 6	To Manage the Entry and Exit of Employees	33,01 €	10°	0,01	14°	0,24
	Proc. 7	To Assure the Good Practices of the Dress Code	33,01 €	10°	0,01	15°	0,17
	Proc. 8	To Manage the Use of Headphones	33,01 €	10°	0,01	16°	0,15
	Proc. 9	To Manage the Candidates Database	33,01 €	10°	0,01	5°	0,49
	Proc. 10	To Recruit Employees	330,07 €	4°	0,11	1°	1,00
	Proc. 11	To Select Employees	165,03 €	5°	0,06	8°	0,41
	Proc. 12	To Look for Profiles	2.896,76 €	1°	1,00	2°	0,69
	Proc. 13	To Hire Employees	165,03 €	5°	0,06	9°	0,40
	Proc. 14	To Update the Recruitment Action Plan	33,01 €	10°	0,01	2°	0,69
	Proc. 15	To Communicate Opportunities, Articles and Innovation	165,03 €	5°	0,06	12°	0,28
	Proc. 16	To Assure Team Building Activities	1.296,12 €	2°	0,45	7°	0,46
		6.074,27 €					

Source: Compiled by author

► Costs

Firstly, it is important to analyze that, comparing to the initial list, there is a new process that was found to be missing: the assurance (coordination) of team building activities. Therefore, this process was added to the existent roster.

¹⁵ (*) For more details regarding the costs classification, see annex J - Table 44.

(**) For more details regarding the benefits classification, see annex J - Table 45

Having said this, one can see that there are two processes that stand out for being the most expensive ones. The first one is the looking of profiles (Process 12), by incurring in 2.896,76€ (around 48% of this Office's total cost). The second is the assurance of team building activities (Process 16), by achieving the monthly cost of 1.296,12€ (around 21% of the most expensive process' cost).

One can also see that there are seven processes that are incurring in very low costs (33,01€), being these the cheapest ones. The remaining processes are incurring in costs from 66,01€ to 660,13€.

► Benefits/Impacts

Regarding the processes' impact rank, it is possible to see that the one that has the less impact in the running of Winning's business is the management of the use of headphones (Process 8).

In contrast, one can also see that the process that has the highest impact is the recruitment of new employees (Process 10). This is quite understandable, as we are analyzing a service company that depends a lot on its human resources.

► Cost/Benefit Analysis

As it is possible to see from the previous table, we may now compare both costs and benefits, as they are measured in the same unit. Therefore, by comparing the columns "Cost Norm Scale" and "Impact Norm Scale" it was possible to achieve the following figure:



Figure 9 - Categorization of each HCO's process according to its cost norm scale and impact norm scale¹⁶

¹⁶ Source: Compiled by author

As one can see from the previous figure, the large majority of the processes are included in the “Evaluate” quadrant. This means that all of these (Process 1, 2, 3, 4, 6, 7, 8, 9, 11, 13, 15 and 16) are incurring in relative reasonable costs, which is positive. However, the impact that these have on the company are less than 50% of the process with the highest impact. Therefore, they should be reconsidered in order to make them more valued to the company.

In the “Keep” category there are Process 5, 10 and 14, which means that these are the processes that are creating considerable value for the company and incurring in reasonable costs (in a relative way). Therefore, these are the ones that should be maintained.

In the “Reduce” category there is only Process 12. This means that, although this process is creating considerable value, it is the most expensive process in HCO (besides, there is a great discrepancy between this process and the rest of the processes). Therefore, and although this is the reference process (for having the highest cost), it should be reconsidered in order to turn it less expensive.

Informatics and Communication Technologies Office

After the allocation of costs and classification of impacts regarding each specific process (by the ICT’s accountable), it was possible to obtain the following table:

Table 12 - Cost and Impact Ranks, regarding ICT area¹⁷

		Costs (*)			Benefits/Impacts (**)		
		TOTAL Cost	Process Cost Rank	Cost Norm Scale	Process Impact Rank	Impact Norm Scale	
Processes	Proc. 1	To Assure Files' Nomenclature	104,36 €	5º	0,14	2º	0,67
	Proc. 2	To Assure the Desktop Background	26,09 €	7º	0,03	7º	0,18
	Proc. 3	To Manage the Electronic Communication Model	756,13 €	1º	1,00	1º	1,00
	Proc. 4	To Acquire Technological Material	415,51 €	2º	0,55	4º	0,60
		To Manage EGOI accesses					
	Proc. 5	To Manage Moodle Accesses	104,36 €	5º	0,14	3º	0,64
	Proc. 6	To Manage the Intranet and ICT's Equipment Accesses	237,04 €	3º	0,31	5º	0,47
Proc. 7	To Assure the Initial Letters of each Employee	130,45 €	4º	0,17	6º	0,22	
			1.773,95 €				

Source: Compiled by author

► Costs

Regarding the initial list of processes, it has undergone a modification. The “management of EGOI accesses” is not currently being executed, as the platform for the customer

¹⁷ (*) For more details regarding the costs classification, see annex K - Table 46.

(**) For more details regarding the benefits classification, see annex K - Table 47.

relationship management has changed, and the company is now using a Cloud Model for the effect. Due to this, it has been removed from ICT's list and will not be considered in the following analysis.

Nevertheless, according to the table above, one can see that the most expensive process, regarding this Office, is the management of the electronic communication model (Process 3), as this is costing around 756,13€ per month.

On the opposite side, the cheapest process is clearly Process 2 (the assurance of the desktop background), as it is only costing 26,09€ per month.

The remaining processes are currently incurring in costs from 104,36€ and 415,51€, per month.

► Benefits/Impacts

Regarding the impacts, as one can see from the previous table, the process with the highest impact is the management of the electronic communication model (Process 3). Conversely, the process with the lowest impact in the company is Process 2 (the assurance of the desktop background), with only 18% of the impact, in relation to Process 3.

► Cost/Benefit Analysis

As it is possible to see from the previous table, we may now compare both costs and benefits, as they are measured in the same unit. Therefore, by comparing the columns “Cost Norm Scale” and “Impact Norm Scale” it was possible to achieve the following figure:

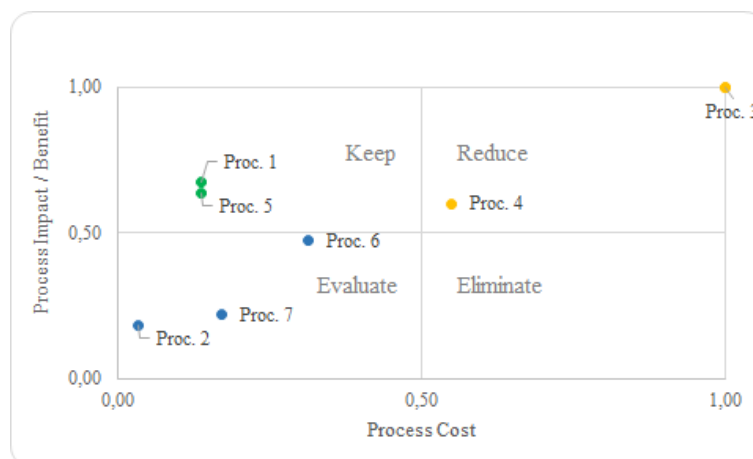


Figure 10 - Categorization of each ICT's process according to its cost norm scale and impact norm scale¹⁸

¹⁸ Source: Compiled by author

From the previous figure, it is possible to verify that the eight processes of this Office are distributed among three quadrants: three processes on “Evaluate”, three on “Keep” and the remaining two on “Reduce”. In advance, it is also possible to see that no process will need to be eliminated.

Regarding Process 2, 6 and 7, in the “Evaluate” quadrant, these are the processes that will need to be reevaluated, in order to try to increase their value to the company.

Regarding Process 1 and 5, in the “Keep” quadrant, these will be the processes that are incurring in relative reasonable costs, and creating considerable value for Winning. For this reason, these are the ones that should be kept.

Finally, regarding Process 3 and 4, in the “Reduce” category, these are the processes that, although they are creating relative considerable value for the company, they are also incurring in relative considerable costs. However, as Process 3 is the reference process (for having the highest cost), it may be inconclusive to make decisions for this process based on the figure. Nevertheless, as it is the most expensive process, the company should think about reducing its global costs. For this reason, both of these processes shall also be reevaluated, in order to turn them less expensive and make them more efficient.

Management School Office

After the allocation of costs and classification of impacts regarding each specific process (by the Management School’s accountable), it was possible to obtain the following table:

Table 13 - Cost and Impact Ranks, regarding MS area¹⁹

		Costs (*)			Benefits/Impacts (**)		
		TOTAL Cost	Process Cost Rank	Cost Norm Scale	Process Impact Rank	Impact Norm Scale	
Processes	Proc. 1	To Plan and Manage Training	5.142,53 €	1°	1,00	3°	0,89
	Proc. 2	To Issue Training Certificates	913,88 €	3°	0,18	10°	0,56
	Proc. 3	To Prepare Training Sessions	51,74 €	8°	0,01	5°	0,76
	Proc. 4	To Update the Training Brochure	10,35 €	10°	0,00	1°	1,00
	Proc. 5	To Prepare the Training Logistics	103,48 €	5°	0,02	6°	0,73
	Proc. 6	To Manage the Training Material Orders	1.685,08 €	2°	0,33	9°	0,67
	Proc. 7	To Manage the Training's Closing and Assessment	103,48 €	5°	0,02	7°	0,72
	Proc. 8	To Manage the Training's Knowledge Base	10,35 €	10°	0,00	7°	0,72
	Proc. 9	To Assess Trainers	103,48 €	5°	0,02	1°	1,00
	Proc. 10	To Manage Certificates' Maintenance	155,23 €	4°	0,03	11°	0,51
	Proc. 11	To Assure the DGERT Certification	51,74 €	8°	0,01	4°	0,82
			8.331,35 €				

Source: Compiled by author

¹⁹ (*) For more details regarding the costs classification, see annex L - Table 48.

(**) For more details regarding the benefits classification, see annex L - Table 49.

► Costs

According to the table above, one can see that the process that is incurring in more costs is the planning and the management of training (Process 1), by costing 5.142,53€ per month. On the opposite side, the cheapest processes are both incurring in 10,35€ per month and are the updating of the training brochure and the management of the training's knowledge base (Process 4 and 8, respectively).

The remaining processes are incurring in costs from 51,74€ to 1.685,08€, per month.

► Benefits/Impacts

Regarding the benefits, one can see that from the eleven existent processes, the one with the highest impact on the company is the updating of the training brochure (Process 4). This is quite understandable in the way that this Office (Management School) depends heavily on the supplied training. Therefore, in order to capture more clients and to be always on the time-to-market, updating its brochure will help on achieving more revenues and consequently, growing the business.

In contrast, the process with the lowest impact on the company is Process 10, with approximately half of the impact in relation to the most impacting one.

► Cost/Benefit Analysis

As it is possible to see from the previous table, we may now compare both costs and benefits, as they are measured in the same unit. Therefore, by comparing the columns “Cost Norm Scale” and “Impact Norm Scale” it was possible to achieve the following figure:

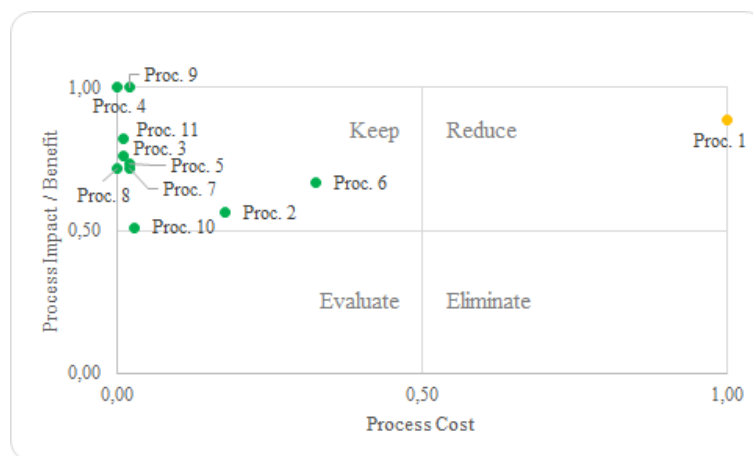


Figure 11 - Categorization of each MS' process according to its cost norm scale and impact norm scale²⁰

²⁰ Source: Compiled by author

As one can see from the previous figure, the great majority of the processes are concentrated in the “Keep” quadrant. This is very positive for this Office, as it means that around 90% of the processes are incurring in relative reasonable costs and creating considerable value (also in relative terms).

Although Process 1 is classified in the “Reduce” category, it is the reference process (the one with the highest cost, will always be considered as having “1,00”). Although this cannot be seen as a negative fact, the company should reconsider about reducing its cost, as it is the most expensive one, in this area

Office Management

After the allocation of costs and classification of impacts regarding each specific process (by the Office Management’s accountable), it was possible to obtain the following table:

Table 14 - Cost and Impact Ranks, regarding OM area²¹

		Costs (*)			Benefits/Impacts (**)		
		TOTAL	Process Cost Rank	Cost Norm Scale	Process Impact Rank	Impact Norm Scale	
Processes	Proc. 1	To Manage the Work in the "Open Space"	4.933,38 €	1º	1,00	4º	0,71
	Proc. 2	To Manage the Office's Cleaning	391,43 €	3º	0,08	3º	0,72
	Proc. 3	To Manage Mailings	34,80 €	5º	0,01	1º	1,00
	Proc. 4	To Manage the Office Material Stock	671,46 €	2º	0,14	2º	0,96
	Proc. 5	To Manage the Opening and Closing of the Office	11,60 €	7º	0,00	6º	0,61
	Proc. 6	To Manage the Relationship with the Landlord	11,60 €	7º	0,00	8º	0,46
	Proc. 7	To Manage the Arrangement of the Office's Spaces	34,80 €	5º	0,01	5º	0,68
	Proc. 8	To Manage the Office's Safety	11,60 €	7º	0,00	9º	0,24
	Proc. 9	To Manage Suppliers	69,61 €	4º	0,01	7º	0,53
			6.170,29 €				

Source: Compiled by author

► Costs

According to the information above, one can see that the most expensive process is Process 1 (the management of the work in the open space), by achieving the total monthly cost of 4.933,38€.

On the opposite side, there are three processes that are incurring in 11,60€ per month, which makes them the cheapest ones. These are the management of the opening and closing of the office, the management of the relationship with the landlord and the management of the office’s safety (Process 5, 6 and 8, respectively).

²¹ (*) For more details regarding the costs classification, see annex M - Table 50.

(**) For more details regarding the benefits classification, see annex M - Table 51.

The costs of the remaining processes are incurring in costs from 34,80€ to 671,46€ per month.

► Benefits/Impacts

Still according to the information above, it is possible to see that the process with the highest impact is the management of emails (Process 3).

On the other hand, the process with the lowest impact is Process 8 (management of safety), with only 24% of impact, in relation to the first one.

► Cost/Benefit Analysis

As it is possible to see from the previous table, we may now compare both costs and benefits, as they are measured in the same unit. Therefore, by comparing the columns “Cost Norm Scale” and “Impact Norm Scale” it was possible to achieve the following figure:

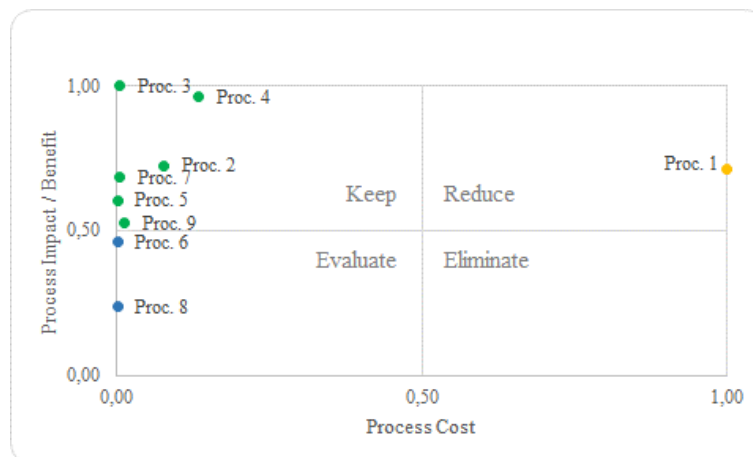


Figure 12 - Categorization of each OM's process according to its cost norm scale and impact norm scale²²

According to Figure 12, one can see that the majority of this Office's processes are more concentrated in the left side of the figure, in the quadrants “Keep” and “Evaluate”. This means that the great majority of the processes are incurring in low costs, in relation to the reference process (the one with the highest cost – Process 1).

Regarding Process 2, 3, 4, 5, 7 and 9 (included in the “Keep” quadrant), these are the ones that should be maintained, in the way that they are creating considerable value, and incurring in relative low costs (in relation to the reference process – Process 1).

²² Source: Compiled by author

Regarding Process 6 and 8 (included in the “Evaluate” category), these are the ones that should be reevaluated, in the way that they are also incurring in relative low costs, but are not creating as much value as they could. Therefore, these should be “rethought”, in order to try to increase their impact on the company.

In relation to Process 1, the company should reconsider this process, in order to reduce its cost.

Project Management Office

After the allocation of costs and classification of impacts regarding each specific process (by the PMO’s accountable), it was possible to obtain the following table:

Table 15 - Cost and Impact Ranks, regarding PMO area²³

		Costs (*)			Benefits/Impacts (**)		
		TOTAL Cost	Process Cost Rank	Cost Norm Scale	Process Impact Rank	Impact Norm Scale	
Processes	Proc. 1	To Assure the Integrated Weekly Planning	250,28 €	1°	1,00	2°	0,80
	Proc. 2	To Assure the Status Report	16,69 €	12°	0,07	7°	0,52
	Proc. 3	To Assure the Timesheet’s Filling in and Approval	41,71 €	4°	0,17	4°	0,75
	Proc. 4	To Assure the Compliance Report	83,43 €	3°	0,33	8°	0,36
		To Assure the Tailoring of Internal Methodology of Project Management					
		To Assure the Physical Progress per Type of Service					
	Proc. 5	To Manage Change Requests	8,34 €	13°	0,03	6°	0,67
	Proc. 6	To Assure Project Charters	33,37 €	7°	0,13	5°	0,71
	Proc. 7	To Assure the Planning’s Quality Control	33,37 €	7°	0,13	10°	0,27
	Proc. 8	To Assure the Dashboard Portfolio	25,03 €	9°	0,10	3°	0,79
	Proc. 9	To Assure the Project Plan	41,71 €	4°	0,17	1°	1,00
	Proc. 10	To train users	41,71 €	4°	0,17	9°	0,29
	Proc. 11	To support EPM's users	208,57 €	2°	0,83	11°	0,21
Proc. 12	To update EPM's configurations	25,03 €	9°	0,10	11°	0,21	
Proc. 13	To Manage EPM accesses	25,03 €	9°	0,10	11°	0,21	
		834,27 €					

Source: Compiled by author

► Costs

Regarding the initial list, one can see that it has undergone a major change, as two of the initial processes have been suppressed (the red ones). After discussing these two cases with this area’s accountable, it is known that these changes have happened due to a paradigm modification at Winning: on the one hand, Winning has less “closed” projects (it is now providing more outsourcing resources) and, on the other hand, the clients’ billing is now made *per period*, instead of project progress, as it used to be. Therefore, these processes

²³ (*) For more details regarding the costs classification, see annex N - Table 52.

(**) For more details regarding the benefits classification, see annex N – Table 53

were eliminated from the list and incorporated in others: the “Assurance of the Tailoring of Internal Methodology of Project Management” was integrated in the process “To Assure the Compliance Report” (Process 4) and the “Assurance of the Physical Progress per Type of Service” was incorporated in the “Assurance of the Dashboard Portfolio” (Process 8).

According to the table above, one can see that the most expensive process is Process 1 (the assurance of the integrated weekly planning), by achieving 250,28€ per month.

The cheapest process is Process 5 (the management of change requests), as it is only incurring in 8,34€ per month.

In addition, the last three processes were added to the existent list, as there were costs that were not fitting in any of the existent ones.

Nevertheless, the remaining processes are incurring in costs from 16,69€ to 208,57€ per month.

▶ Benefits/Impacts

Regarding the benefits, one can see that the process with the highest impact on the company is the assurance of the project plan (Process 9). On the other hand, there are three processes that are classified as being the ones with the lowest impact on the company, by having 21% of the impact, in relation to Process 9. These are the supporting of EPM’s users, the update of EPM’s configuration and the management of EPM accesses (Process 11, 12 and 13, respectively).

▶ Cost/Benefit Analysis

As it is possible to see from the previous table, we may now compare both costs and benefits, as they are measured in the same unit. Therefore, by comparing the columns “Cost Norm Scale” and “Impact Norm Scale” it was possible to achieve the following figure:

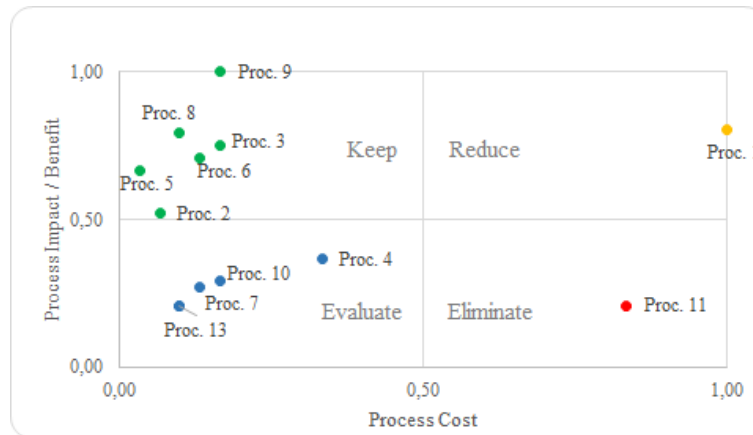


Figure 13 - Categorization of each PMO's process according to its cost norm scale and impact norm scale²⁴

According to the previous figure, it is possible to see that there are processes included in each quadrant. As one may see, Process 1 and Process 9 are the reference processes – one, by having the highest cost (Process 1), and the other for having the highest impact (Process 9). Process 1 is categorized in the “Reduce” category, which means that Winning should evaluate in which way it can attenuate its cost, in order to minimize the existing difference to the remaining ones. Process 9 (the assurance of the project plan) is the one with the most impact on the company and also incurring in relative reasonable costs, which is positive (consequently, it is classified in the “Keep” quadrant).

In addition, one can also see that the great majority of the processes are included in the “Keep” and “Evaluate” quadrants. This is quite good, as it means that there are many processes that are incurring in reasonable costs and creating considerable value for the company – those that are in the “Keep” quadrant (these are Process 2, 3, 5, 6, 8 and 9).

Regarding all the processes that are included in the “Evaluate” quadrant, it means that these processes are incurring in reasonable costs, however are also creating low value for the company. Therefore, these should be analyzed in order to turn them more valuable/with more impact (these are Process 4, 7, 10 and 13)

There is only one process that is classified in the “Eliminate” quadrant (Process 11), which means that this process has relative high costs, comparing to the impact that it has on the company.

²⁴ Source: Compiled by author

Marketing Office

After the allocation of costs and classification of impacts regarding each specific process (by the Marketing's accountable), it was possible to obtain the following table:

Table 16 - Cost and Impact Ranks, regarding MKO area²⁵

Processes		Costs (*)			Benefits/Impacts (**)	
		TOTAL Cost	Process Cost Rank	Cost Norm Scale	Process Impact Rank	Impact Norm Scale
Proc. 1	To Update the EGOI	68,75 €	3º	0,04	1º	1,00
Proc. 2	To Update the Website	275,01 €	2º	0,14	2º	0,86
Proc. 3	To Manage the Use of the Corporative Image	1.921,69 €	1º	1,00	2º	0,86
		2.265,44 €				

Source: Compiled by author

► Costs

According to the table above, the most expensive process is the management of the use of the corporative image (Process 3), as it is costing 1.990,44€ per month. On the other hand, the cheapest one is the updating of the EGOI, by costing 68,75€ per month (which corresponds to approximately 4% of Process 3's cost).

The remaining process (the updating of the website – Process 2) is incurring in about 275,01€, which translates into 14% of the cost of the most expensive process (i.e., Process 3).

In conclusion, one can see that there is a great discrepancy in the costs of these processes, as process 3 is incurring in much higher costs than processes 1 and 2.

► Benefits/Impacts

Regarding the benefits, one can see that the process with the highest value for Winning is the updating of the EGOI. Conversely, the remaining two processes are both classified in the second place, as they are classified as having 86% of Process 1's impact.

► Cost/Benefit Analysis

As it is possible to see from the previous table, we may now compare both costs and benefits, as they are measured in the same unit. Therefore, by comparing the columns "Cost Norm Scale" and "Impact Norm Scale" it was possible to achieve the following figure:

²⁵ (*) For more details regarding the costs classification, see annex O - Table 54.

(**) For more details regarding the benefits classification, see annex O - Table 55.



Figure 14 - Categorization of each MKO's process according to its cost norm scale and impact norm scale²⁶

As one may see, Process 1 and Process 3 are the reference processes – one, by having the highest cost, and the other for providing the highest impact/benefit for Winning. However, Process 1 is classified in the “Keep” category, which means that this is creating considerable value (the highest one), and incurring in very low costs. On the other hand, although Process 3 is having the highest cost, it is classified in the “Reduce” quadrant, which means that it is also creating considerable value. However, for this last one, it is important to analyze in which way the process (the management of the use of the corporative image) may be reduced in terms of costs, as it has a great discrepancy relatively to the remaining ones.

The remaining process (Process 2) is classified in the “Keep” category, which is quite positive, as it means that it is incurring in relative low costs, and creating relative considerable value for the company.

Quality and Compliance Office

After the allocation of costs and classification of impacts regarding each specific process (by the QCO's accountable), it was possible to obtain the following table:

²⁶ Source: Compiled by author

Table 17 - Cost and Impact Ranks, regarding QCO area²⁷

		Costs (*)			Benefits/Impacts (**)		
		TOTAL Cost	Process Cost Rank	Cost Norm Scale	Process Impact Rank	Impact Norm Scale	
Processes	Proc. 1	To Assure Documents' Control	8,08 €	3°	0,08	5°	0,66
	Proc. 2	To Assure the Control of Records	1,62 €	9°	0,02	9°	0,42
	Proc. 3	To Manage the Internal Audit	32,33 €	2°	0,33	4°	0,73
	Proc. 4	To Assure the Non-Conformities' Control	8,08 €	3°	0,08	3°	0,82
	Proc. 5	To Manage Corrective Actions	3,23 €	6°	0,03	2°	0,84
	Proc. 6	To Manage Preventive Actions	4,85 €	5°	0,05	7°	0,56
	Proc. 7	To Manage the Elaboration of Procedures	96,99 €	1°	1,00	1°	1,00
		To Assure the Good Practices in Emails					
	Proc. 8	To Assure Quality and Accurateness in the Writing Process	3,23 €	6°	0,03	6°	0,64
Proc. 9	To Assure the Good Practices in the Scheduling and Running of Meetings	3,23 €	6°	0,03	8°	0,55	
			161,65 €				

Source: Compiled by author

► Costs

Regarding the initial list, it is possible to see that one of the processes has undergone a change: the assurance of the good practices in emails (the red process) was eliminated. According to this area's accountable, this process was integrated in the QCO's roles in the beginning of the company, in order to standardize the communication process in emails. However, along with the evolution of the company, this communication has also evolved and is now consistent and properly established. Therefore, and considering that nowadays this control does not exist, it makes no sense to keep it on the list. This process was then eliminated and will not be considered in the further analysis.

Nevertheless and according to the table above, one can see that the most expensive process is the management of the procedures' elaboration (Process 7), by costing 96,99€ per month. On the opposite side, the cheapest process is the assurance of the control of records (Process 2), by only costing 1,62€ per month.

The remaining processes are incurring in costs from 3,23 to 32,33 euros.

► Benefits/Impacts

As one can see, the process with the highest impact on the company is Process 7 – “To manage the elaboration of procedures”.

²⁷ (*) For more details regarding the costs classification, see annex P - Table 56.

(**) For more details regarding the benefits classification, see annex P - Table 57.

Having this process as a reference, it is also possible to ascertain that the process with the lowest impact is the assurance of the control of records (Process 2), by having 42% of the impact, in relation to Process 7.

► Cost/Benefit Analysis

As it is possible to see from the previous table, we may now compare both costs and benefits, as they are measured in the same unit. Therefore, by comparing the columns “Cost Norm Scale” and “Impact Norm Scale” it was possible to achieve the following figure:

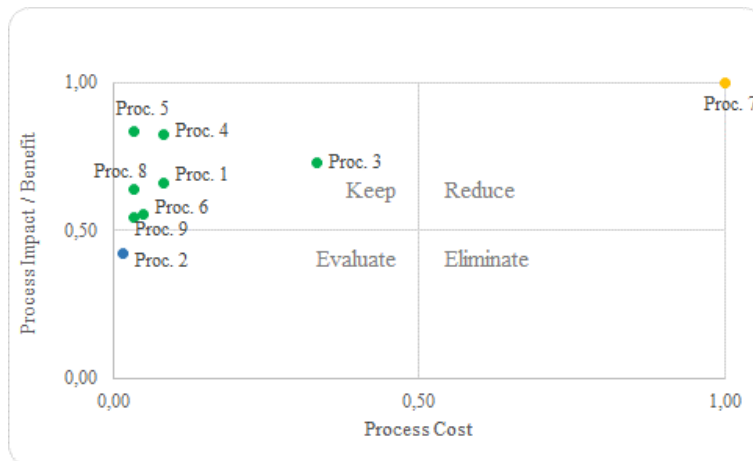


Figure 15 - Categorization of each QCO's process according to its cost norm scale and impact norm scale²⁸

As one may see from the previous figure, the large majority of the processes are included in the “Keep” quadrant. This is positive in the way that it means that most of the processes are creating considerable value and incurring in reasonable costs.

The outliers are Process 2 and 7, as they are categorized in the “Evaluate” and “Reduce” quadrant, respectively.

Regarding Process 2, although it is quite close to the “Keep” quadrant, it means that it should be reconsidered in the way that it should be providing more value than it is currently providing.

Regarding Process 7, although it is the process with the highest impact on the company, it is also incurring in the highest costs. Therefore, these costs should be analyzed in order to turn the process less expensive.

²⁸ Source: Compiled by author

Overall View

Now that we have analyzed each supporting area and its respective secondary processes individually, and in order to have a global vision, we will now analyze the framework in which these processes are included. For this, all the previous information was aggregated into one single graphic, as follows:

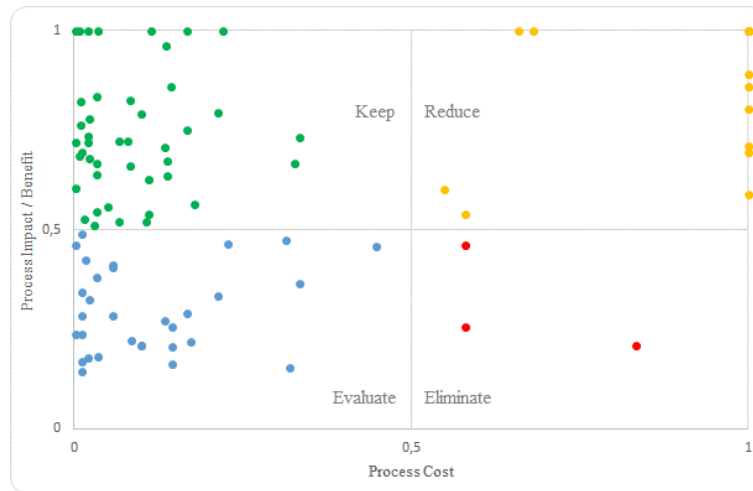


Figure 16 - Overall Process Categorization²⁹

As one can see, the great majority of the processes are categorized in the “Keep” and “Evaluate” quadrant. Regarding the “Evaluate”, Winning should act upon these, as they are incurring in relative low costs, but should be creating more value to the company than they actually are. In addition, most of the processes that are included in the “Reduce” quadrant, are reference processes (they are the most expensive processes in their respective Office). Nevertheless, these processes (plus the non-reference processes that are also included in this quadrant) are the ones that should be rethought, in order to find in which way their cost can be reduced.

In relation to the three processes included in the “Eliminate” category, these are the ones that should be eliminated, as they have relative low impact in the company and are incurring in relative high costs (nevertheless, these shall always be analyzed by the Management, before its definitive elimination).

The following table aims to describe the information on Figure 16, by aggregating the data from the entire complementary analysis, so that Winning can know, in a summarized way, how it should act upon each process:

²⁹ Source: Compiled by author

Table 18 - Processes classified in the "Evaluate" Category

EVALUATE			
BDO	To communicate contracts awards	HCO	To manage the entry and exit of employees
FIN	To manage purchases and expenditures	HCO	To assure the good practices of the dress code
FIN	To manage payments to government and suppliers	HCO	To manage the use of headphones
FIN	To make the daily finance report	HCO	To manage the candidates database
FIN	To register and check the monthly financial information	ICT	To assure the desktop background
GM	To assign roles	ICT	To manage intranet and ICT's equipment accesses
GM	To create new business areas	ICT	To assure the initial letters of each employee
GM	To stablish business/technical partnerships	OM	To manage the relationship with the landlord
HCO	To assure the employees' schedule (entry/exit)	OM	To manage the Office's safety
HCO	To select employees	PMO	To train users
HCO	To hire employees	PMO	To update epm's configurations
HCO	To communicate opportunities, articles and innovations	PMO	To manage epm accesses
HCO	To assure team building activities	PMO	To assure the compliance report
HCO	To manage the absences	PMO	To assure the Planning's quality control
HCO	To manage each employee's objectives form	QCO	To assure the control of records
HCO	To assure the monthly performance appraisal		

Source: Compiled by author

Table 19 - Processes classified in the "Keep" Category

KEEP			
BDO	To report the commercial action plan	MS	To manage the training's Knowledge Base
BDO	To draw up proposals	MS	To assess trainers
BDO	To manage the consultant business plan	OM	To manage the office's cleaning
BDO	To assess clients' satisfaction	OM	To manage mailings
BDO	To make the follow up of the commercial action plan	OM	To manage the office material stock
FIN	To manage the order forms	OM	To manage the opening and closing of the office
FIN	To manage collections	OM	To manage the arrangement of the Office's spaces
HCO	To recruit employees	OM	To manage suppliers
HCO	To update the recruitment action plan	PMO	To assure the status report

HCO	To plan and manage holidays	PMO	To assure the timesheet's filling in and approval
ICT	To assure files' nomenclature	PMO	To manage change requests
ICT	To manage Moodle accesses	PMO	To assure project charters
MKO	To update the EGOI	PMO	To assure the Dashboard Portfolio
MKO	To update the Website	PMO	To assure the project plan
MS	To manage certificates' maintenance	QCO	To assure documents' control
MS	To assure the DGERT certification	QCO	To manage the internal audit
MS	To issue training certificates	QCO	To assure the non-conformities' control
MS	To prepare training sessions	QCO	To manage corrective actions
MS	To update the training brochure	QCO	To manage preventive actions
MS	To prepare the training logistics	QCO	To assure quality and accurateness in the writing process
MS	To manage the training material orders	QCO	To assure the good practices in the scheduling and running of meetings
MS	To manage the training's closing and assessment		

Source: Compiled by author

Table 20 - Processes classified in the "Reduce" Category

REDUCE			
BDO	To develop the business prospecting	ICT	To manage the electronic communication model
BDO	To manage the installed basis	ICT	To acquire technological material
FIN	To manage the monthly billing	MKO	To manage the use of the corporative image
FIN	To manage the payroll processing	MS	To plan and manage training
GM	To assure the consolidated business plan	OM	To manage the work in the "open space"
GM	To define the business strategy	PMO	To assure the integrated weekly planning
HCO	To look for profiles	QCO	To manage the elaboration of procedures

Source: Compiled by author

Table 21 - Processes classified in the "Eliminate" Category

ELIMINATE	
GM	To assure the Process Improvement Plan
GM	To redefine the Governance Model
PMO	To support EPM's users

Source: Compiled by author

From this, and in order to Winning to have a global perspective of which are the most expensive processes (those that it should act upon more urgently) and which are the ones that are creating more impact in the company, the following figure was created:

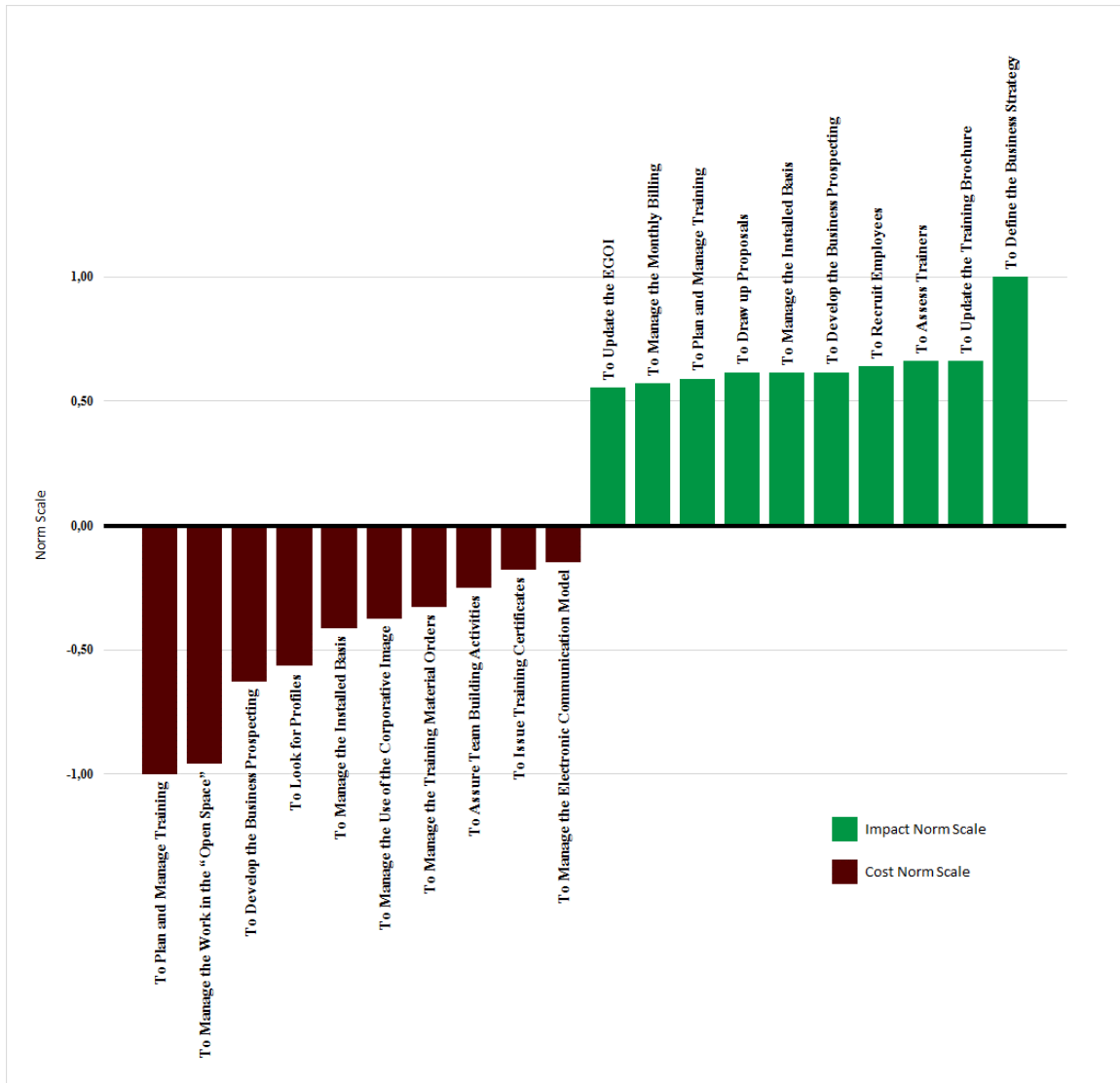


Figure 17 - Most Expensive vs. Most Impacting Processes³⁰

According to Figure 17, it is possible to see that the most expensive processes (in descending order) and the most impacting processes (in ascending order) are the following:

³⁰ Source: Compiled by author

Table 22 - Most Expensive vs. Most Impacting Processes

MOST EXPENSIVE	MOST IMPACTING
To plan and manage training (MS)	To update the EGOI (MKO)
To manage the work in the “open space” (OM)	To manage the monthly billing (FIN)
To develop the business prospecting (BDO)	To plan and manage training (MS)
To look for profiles (HCO)	To draw up proposals (GM)
To manage the installed basis (BDO)	To manage the installed basis (BDO)
To manage the use of the corporative image (MKO)	To develop the business prospecting (BDO)
To manage the training material orders (MS)	To recruit employees (HCO)
To assure team building activities (HCO)	To assess trainers (MS)
To issue training certificates (MS)	To update the training brochure (MS)
To manage the electronic communication model (ICT)	To define the business strategy (GM)

Source: Compiled by author

Chapter 5 - Implementation Proposal

In order to definitely increase the value for Winning, it is extremely important to convert this “pilot project” into a consistent model that the company may use whenever it considers to be relevant. Therefore, it is important to define the implementation forms that will help Winning on permanently implement this model.

The implementation forms regarding this project will then be separated into two different stages, similarly to the previous topics: one, regarding the implementation of the ABC model, and the other regarding the complementary analysis to each one of the supporting processes.

However, the necessary data will depend on how regularly the company will consider to be appropriate to apply the model. Regarding the type of data, it will be the same as the previously detailed in this project.

Similarly to what has been developed in this dissertation, all the model shall be supported by an Excel file, which will comprehend all the required information for the application of the model.

5.1. Assumptions and Constraints

Regarding the assumptions that we are taking into account in this project, one is considering that:

1. The necessary resources (namely the human resources) are passing through a process of awareness, in order to them to understand the importance of the model and, consequently, to provide the most accurate information.
2. There will be a real awareness on repeating the analysis on a regular basis, in order to have a genuine perception of the evolution of the company: on the one hand, regarding the contribution of each Competency Center for the global results of the company and, on the other hand, regarding the influence of the supporting processes on the running of the business.

In relation to the main constraints that this project implementation may face, these are resumed to the resources availability (i.e., the human resources), as it may require an extra effort in the beginning, from certain employees.

In addition, as the only software that will be required is the Excel program, there should not be any problem regarding this subject.

5.2. Information Update

The first step shall be the updating of the full OBS. As Winning has recently changed its structure, the main step is then to update and apply the developed model to the new organigram (as this project had been applied to the previous one). Having the OBS updated, a restructure in the processes that compose each supporting area should also be performed (resulting from this project's analysis). Only after this, the analysis should be performed on a regular basis.

5.3. Development of an Appropriate Excel Template

In order to Winning to definitely apply the model in the company, it becomes crucial to create the Excel template that will be the base of the analysis.

Worksheet 1, Sheet 1 – “Staff”³¹:

1. Create a list with all Winning's Employees.
2. In the columns immediately after this list, create as many columns as the number of Competency Centers, plus the number of existing supporting processes. These are intended to be for the identification of their Competency Center and the supporting processes/areas in which they are involved in (which shall be filled in with their time allocation in each one of these, respectively);
3. Create other two columns in order to identify the costs of computers and cellphones, per each employee;
4. Create as many columns as the total months of the analysis, in order to register the wages of each employee;
5. Create another column in the end of the previous ones, in order to compute the total cost of each employee, allocated to the respective Competency Center;
6. After the last column, create as many columns as the number of existing supporting processes/areas. The goal is to, similarly to the previous point, compute the cost of each employee in each supporting area.

Worksheet 1, Sheet 2 – “Direct Costs”³²:

1. Create as many columns as the number of existing Competency Centers;

³¹ To see an example of this sheet, consult annex Q - Table 58.

³² To see an example of this sheet, consult annex Q - Table 59.

2. List the direct costs (including the staff cost computed in the previous sheet and other costs) incurred by each Competency Center;

Worksheet 1, Sheet 3 – “Indirect Costs”³³:

1. List all the supporting processes/areas that exist in the company;
2. For each area, create six columns for the categorization of the costs (Staff; Materials; Renting; Suppliers; Licenses and Other).
3. Divide each category into other columns: create as much columns as the number of months that are being analyzed.
4. In the end of these columns, create other six columns with the same cost categorization (“Staff”, “Materials”, “Renting”; “Suppliers”, “Licenses” and “Other”). These shall refer to the average costs of each category.
5. After the last referred column, create another one with the designation of “TOTAL”. The values in this column will translate the total cost incurred by each supporting area.

Worksheet 1, Sheet 4 – Revenues³⁴

1. List the existing Competency Centers;
2. Create as many columns as the analyzed months, in order to fill in the revenues obtained in each competency center, in each analyzed month;
3. After these last columns, create other two to register the average values: one, for the revenues’ absolute average, and the other for the correspondent value in percentage.
4. Repeat step 1, 2 and 3, for the filling in of the training revenues.

Worksheet 1, Sheet 5 – ABC Application³⁵

This last sheet aims to perform the final application of the ABC model. Therefore, this intends to aggregate and summarize all the necessary information collected in the previous sheets that will be used on the application of the model.

1. Divide the sheet into as many parcels as the number of the existing competency centers;

³³ To see an example of this sheet, consult annex Q - Table 60.

³⁴ To see an example of this sheet, consult annex Q - Table 61.

³⁵ To see an example of this sheet, consult annex Q - Figure 18.

2. In each parcel, identify the following aspects: Cost Drivers (number of employees in the Competency Center, global revenues and training revenues, with its respective values); Indirect Costs (identification of each supporting process, in order to identify the overhead costs assigned to each center); Direct Costs (by identifying the total value obtained in Sheet 2); Sum of the both Direct and Indirect costs;
3. Sum the total costs, incurred by all the Competency Centers;
4. Construct a “summary” table, in which the existing competency centers are listed in the first column, and the Cost Contribution and the respective Benefit-Cost Ratio are in the second and third column, respectively.

Worksheet 2:

1. Create as many sheets as the total number of supporting processes/areas.
2. For each sheet, list the processes that are currently composing the Office.
3. Use the following columns to make the distribution of costs and the classification of impacts³⁶:
 - a. Regarding the distribution of costs, use one column per type of cost (staff, materials, renting, suppliers, licenses and other). The following three columns are designated for the cost rank of each secondary process (one for the total cost, another for the process cost rank and the last one for the cost norm scale).
 - b. Use the following columns to make the impacts’ classification. There should be a column per each impact category: Loss Margins, Loss Revenues, Loss Clients, Loss Image, More Rework, More Scrap, More Work, More Time, Big Penalty, Penalty, Big Incongruence, Incongruence. These should be scaled from 12 to 1, respectively. The last three columns, similarly to point a., are designed for the impact rank of each secondary process (one, for the total impact, another for the process impact rank and the last one for the impact norm scale).
4. For each sheet, create a scatter plot by using the data (cost norm scale; impact norm scale) of each secondary process, in order to obtain the location of each one in the graph. The x-axis shall be the “Process Cost” and the y-axis shall be the “Process

³⁶ To see a graphical example of this point, consult annex R.

Impact/Benefit”. Both of these shall have the limits between 0 and 1, and quadrant shall be classified³⁷:

- a. (0 - 0,5 ; 0 – 0,5) – Evaluate
- b. (0 – 0,5 ; 0,5 – 1) – Keep
- c. (0,5 -1 ; 0 – 0,5) - Eliminate
- d. (0,5 – 1 ; 0,5 – 1) – Reduce

5.4. Application of the Model and its Complementary Analysis

The application of this model at Winning will follow an “instant-on” approach, as there are no great constraints on putting this pilot project into a consistent model.

After the information update, and regarding the application of the ABC model, the main source shall continue to be the Financial Office, as it provides all the necessary information about direct and indirect costs of “products” and its respective monetary benefits.

After having all this data collected, the Excel file itself will be able to balance the information for each Competency Center, by relating costs and benefits and achieving the real benefit-cost ratio.

On another Excel file shall be the complementary analysis to each supporting process. This last one shall be divided into several sheets, as there should be one sheet per each supporting Office. As the filling in of these sheets will depend on the appropriate accountable assigned for each process, for every time Winning considers to be relevant to repeat the complementary analysis, these people should be asked to answer both the distribution of costs (per secondary process) and the impacts’ classification regarding each one.

Again, regardless of how regularly the company considers to be relevant to repeat this procedure, for each repetition, two Excel files shall be generated.

Having said this, and regarding the first topic (application of the ABC model) an Excel template will be provided to Winning (Worksheet 1), in order to the Financial Office to fill in all the required fields. This template shall be divided into several sheets, by aggregating all the direct costs, all the indirect costs, and the application of the model itself. Regarding

³⁷ To see a graphical example of this point, consult annex S.

the second topic (Complementary Analysis), another Excel Template should be provided (Worksheet 2), in order to the accountable of each supporting process to fill it in.

At this point, the management assumes a very important role, as it should sensitize its employees of the importance of having accurate results in the analysis, and therefore to request their answer to the forms in the most accurate way, whether in the distribution of the cost or in the classification of the impact of each secondary process. After this awareness, the major steps to be followed in order to Winning to perform the analysis are:

For the ABC application:

1. To ask the Financial Office to update the template with eventual changes that may have happened since the last analysis, whether in the Organizational Breakdown Structure or regarding the employees on each supporting process or Competency Center;
2. To ask the employees of each supporting process to distribute their time among the supporting processes and Competency Centers;
3. To ask the Financial Office to fill in the Excel template with the overhead costs of each supporting process, and the direct costs incurred by each Competency Center;
4. To ask the Financial Office to fill in the Excel template with the revenues achieved by each Competency Center in the analyzed period;
5. To ask the Financial Office to analyze the results regarding the contribution of each Competency Center to Winning's global results, and deliver the results to the Management;

For the Complementary Analysis:

6. Selection (by the Management) of one accountable per each supporting process;
7. To deliver Worksheet 2 to each one of those accountable, in order to them to distribute the incurred costs per each secondary process and to analyze the impact of each one of these, according to their expertise;
8. To deliver the results to the Management, in order to this to analyze the output graph and take the main conclusions from it (which are the ones that should be kept, eliminated, evaluated or reduced).

5.5. Implementation and Verification

After all the model is implemented, it shall be analyzed and verified by Winning's CEO, as he is the figure that better knows the company and can ascertain about the accuracy of the model. After having his approval, the model can be implemented and be included in the Governance Model of the company.

Although it should be a purpose of the Management, it is recommendable that the analysis follow an annual basis, in order to match the annual strategy definition. Therefore, all the necessary and detailed tasks outlined in this chapter, for the implementation of the model, shall be carried out during the last trimester of 2015, in order to apply it in the beginning of 2016, regarding the whole year of 2015.

Chapter 6 - Project Conclusions and Contributions

6.1. Project Conclusions and Contributions

From a global view, this project was able to prove that, in fact, and despite the need of making some adjustments, the answer to this dissertation's title is yes: it is possible to apply the ABC model in a consulting company.

This conclusion was only possible due to the extended analysis that was developed based on the example of Winning Management Consulting. From this, it was possible to take the following conclusions:

1. From the ABC Model:

Considering the Competency Centers that composed the company during the analysis period, one could see that the one that is contributing the most for the total costs, is the Project Management Competency Center, with around 59% of the total costs. This is followed by the Business Analysis Competency Center, by incurring in 35,8% of the total incurred costs. Lastly, the Benefits Management Competency Center is the one with the lowest costs, by incurring in only 5,2% of the total ones. Regarding the revenues for each ones, the order remains the same: Project Management Competency Center is the one that contributes the most for the global revenues of the company, with 64,61% of the total value, which is followed by the Business Analysis Competency Center, by contributing with 29,69% for the global revenues. The Benefits Management Competency Center is the one with the lowest revenues, by contributing with around 5,7% of the total ones.

However, after balancing the costs versus the benefits (revenues) for each of the referred Competency Centers, it was possible to conclude that the contribution is not as linear as it seemed to be: the center of Benefits Management, although it has the lowest revenue contribution, it has the highest Benefit-Cost Ratio, by providing Winning a return of 31 cents per each invested euro (BCR=1,31). It is followed by the center of Project Management, which is providing Winning a return of 30 cents per each invested euro (BCR=1,30). The last one is the center of Business Analysis, as it is providing a negative return per each invest euro (around 2 cents, as BCR=0,98).

2. From the Complementary Analysis:

The conclusions regarding the supporting processes were taken from two different moments: first, from an *a priori* analysis, as there were processes that were not fitting in the current running of Winning's business; and second, after considering the changes from the first topic, from the analysis of the "effective" processes. For the first ones, it was possible to conclude that there were no real sense on maintaining some of them, as they were outdated (namely the "management of EGOI accesses" in the Information and Communication Technologies Office, and the "assurance of the good practices in emails", in the Quality and Control Office). Therefore, these were eliminated from the analysis.

Other cases have also appeared, such as the rearrangement of some processes, in the way that they seem to fit better in other processes, than by standing all by themselves (namely, the "management of the payment of the food allowance" and the "check of the monthly costs of employees", in the Human Capital Office, which fit better in the process of the "management of the payroll processing"; and the "assurance of the tailoring of internal methodology of project management" and the "assurance of the physical progress per type of service", in the Project Management Office, which fit better in the "assurance of the compliance report" and the "assurance of the dashboard portfolio", respectively). In addition, some processes were added, as there were tasks that were being executed and were not documented anywhere (namely the "assurance of team building activities" in the Human Capital Office, and the "training of users", "support of EPM's users" and the "updating of EPM's configurations", in the Project Management Office).

Regarding the second stage of the analysis, it was possible to conclude that, from the ninety-one existing processes, only three are classified in the "Eliminate" category, which means that these processes should be removed from the existing tasks, as they are incurring in too many costs, comparing to the impact/benefit that they are providing to the company. There are fourteen processes that are classified in the "Reduce" category, which means that the company should act upon these processes, because although these are creating considerable value for the company (contrary to the "Eliminate" category), they are the ones that are incurring in the relative highest costs (together with the "Eliminate" category). Regarding the "Evaluate" category, there are thirty-one processes classified in this group. This means that these processes should not be immediately eliminated, as they are not incurring in such high costs, but instead they should be reevaluated, in order to turn them more valuable and with more impact to the company. Fortunately, the greatest

majority of the processes are classified in the “Keep” category (which totalizes forty-three processes). This means that these are the processes that certainly shall be preserved, as they are incurring in relative low costs, and have a considerable impact in the company.

In conclusion, this corporate project has helped the Global Management on understanding that ABC is not exclusively applicable to goods companies, but it is also pertinent to apply to a substantial slice of the services market (the Consultancy).

In addition, the complementary analysis that was conducted after the ABC application, were proved to be useful and an important “complement” to the model, in order to increase the efficiency of companies, in the way that it provides important graphical information that clarifies the contribution and real weight of each supporting process of the company.

6.2. Limitations of the Project

The main limitation of this project is certainly due to the fact that it is extremely difficult to obtain accurate results on the benefits measurement of each supporting process (as these are just meant to support the running of the business).

Therefore, it was not possible to do a quantitative analysis regarding this topic (by ascertaining about the real value – monetary value – that each process is providing to Winning), but instead a qualitative study was conducted. Therefore, for future investigations, it is important to understand the need of exploring other methodologies that may help on the conversion of this qualitative analysis into a quantitative one. By achieving this, companies will better identify the real benefits, that each of the supporting processes is providing them.

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Chapter 8 - Annexes

Annex A – Costs incurred by each supporting area, categorized by cost source and month (October, November and December)

Table 23 - BDO's Costs in October, November and December

	Staff	Materials	Renting	Suppliers	Licenses	Other
October	6.436,10 €	34,82 €	-	-	-	-
November	9.900,23 €	34,82 €	-	-	-	-
December	4.967,98 €	34,82 €	-	-	-	-

Source: Compiled by author

Table 24 - FIN's Costs in October, November and December

	Staff	Materials	Renting	Suppliers	Licenses	Other
October	1.557,12 €	-	-	375,00 €	-	-
November	1.557,12 €	-	-	375,00 €	-	-
December	1.557,12 €	-	-	375,00 €	-	-

Source: Compiled by author

Table 25 - GM's Costs in October, November and December

	Staff	Materials	Renting	Suppliers	Licenses	Other
October	1.963,16 €	-	-	-	-	-
November	1.933,96 €	-	-	-	-	112,10 €
December	1.303,16 €	-	-	-	-	215,22 €

Source: Compiled by author

Table 26 - HCO's Costs in October, November and December

	Staff*	Materials	Renting	Suppliers	Licenses	Other
October	3.336,31 €	242,56 €	-	239,59 €	-	-
November	3.359,93 €	-	-	-	-	-
December	3.205,74 €	-	-	519,20 €	-	2.151,65€

Source: Compiled by author

Table 27 - ICT's Costs in October, November and December

	Staff	Materials	Renting	Suppliers	Licenses	Other
October	1.433,64 €	-	-	207,44 €	316,67 €	-
November	1.239,95 €	-	-	125,44 €	316,67 €	-
December	1.239,95 €	-	-	125,44 €	316,67 €	-

Source: Compiled by author

Table 28 - MS' Costs in October, November and December

	Staff	Materials	Renting	Suppliers	Licenses	Other
October	1.042,24 €	301,57 €	-	5.912,89 €	-	-
November	1.026,39 €	422,81 €	-	8.100,00 €	-	-
December	1.035,91 €	145,82 €	-	-	-	-

Source: Compiled by author

Table 29 - OM's Costs in October, November and December

	Staff	Materials	Renting	Suppliers	Licenses	Other
October	233,29 €	196,75 €	4.822,19 €	954,20 €	-	-
November	230,12€	-	4.979,58 €	1.367,71 €	-	-
December	232,67 €	117,35 €	4.928,75 €	291,20 €	-	-

Source: Compiled by author

Table 30 - PMO's Costs in October, November and December

	Staff	Materials	Renting	Suppliers	Licenses	Other
October	830,34 €	-	-	-	-	-
November	836,24 €	-	-	-	-	-
December	836,22 €	-	-	-	-	-

Source: Compiled by author

Table 31 - MKO's Costs in October, November and December

	Staff	Materials	Renting	Suppliers	Licenses	Other
October	1.276,06 €	17,41 €	-	860,00 €	38,00 €	-
November	1.430,86 €	17,41 €	-	700,00 €	38,00 €	-
December	1.418,19 €	17,41 €	-	945,00 €	38,00 €	-

Source: Compiled by author

Table 32 - QCO's Costs in October, November and December

	Staff	Materials	Renting	Suppliers	Licenses	Other
October	156,32 €	-	-	-	-	-
November	156,71 €	-	-	-	-	-
December	171,94 €	-	-	-	-	-

Source: Compiled by author

Annex B – Percentage of time dedicated to each supporting area (by employee)

Table 33 - Percentage of time dedicated to each supporting area (by employee)

Employee	BDO	FIN	GM	HR	ICT	MS	OM	PMO	MKO	QCO	Main Centers
1	80,0%								20,0%		0,0%
2	100,0%										0,0%
3	100,0%										0,0%
4	66,7%								33,3%		0,0%
5		100,0%									0,0%
6			20,0%								80,0%
7				70,0%		25,0%	5,0%				0,0%
8					11,1%						88,9%
9					11,1%						88,9%
10					13,0%						87,0%
11					11,1%						88,9%
12					40,0%						60,0%
13						80,0%	20,0%				0,0%
14								15,0%			85,0%
15								16,7%			83,3%
16										2,2%	97,8%
17										2,4%	97,6%

Source: Compiled by author

Annex C – Global Revenues in October, November and December

Table 34 - Global Revenues incurred by each Competency Center in October, November and December, and its respective monthly average and relative weight (in %)

	October	November	December	AVERAGE	%
BMCC	9.617,00 €	24.760,00 €	10.750,00 €	15.042,33 €	5,70%
BACC	85.955,00 €	88.096,00 €	60.813,00 €	78.288,00 €	29,69%
PMCC	155.879,00 €	211.677,00 €	143.627,00 €	170.394,33 €	64,61%
TOTAL	251.451,00 €	324.533,00 €	215.190,00 €	263.724,67 €	100,00%

Source: Compiled by author

Annex D – Total Training Revenues in October, November and December

Table 35 - Total Training Revenues incurred by each Competency Center in October, November and December, and its respective monthly average and relative weight (in %)

	October	November	December	AVERAGE	%
BMCC	0,00 €	0,00 €	0,00 €	0,00 €	0,00%
BACC	0,00 €	4.300,00 €	0,00 €	4.300,00 €	12,14%
PMCC	1.710,00 €	16.557,00 €	12.851,00 €	31.118,00 €	87,86%
TOTAL	1.710,00 €	20.857,00 €	12.851,00 €	35.418,00 €	100,00%

Source: Compiled by author

Annex E – Staff Costs of each Competency Center in October, November and December

Table 36 - Staff Costs incurred by each Competency Center in October, November and December (includes wages, cost of computers per month and cost of cellphones per month)

	October	November	December
PMCC	103.071,19 €	105.629,78 €	108.469,24 €
BACC	66.449,6 €	66.527,26 €	71.047,7 €
BMCC	10.822,98 €	10.404,18 €	8.047,98 €

Source: Compiled by author

Annex F – Other Direct Costs incurred by each Competency Center in October, November and December

Table 37 - Other Direct Cost incurred by each Competency Center in October, November and December

	October	November	December
PMCC	7.486,09 €	6.122,41 €	5.940,47 €
BACC	1.262,90 €	0,00 €	645,51 €
BMCC	651,15 €	1.100,45 €	0,00 €

Source: Compiled by author

Annex G – BDO's costs distribution and benefits classification

Table 38 - BDO's Cost Distribution per each secondary process

		Staff	Materials	Rentings	Suppliers	Licenses	Other	TOTAL
		7.101,44 €	34,82 €	-	-	-	-	7.136,25 €
Processes	Proc. 1 To Communicate Contracts Awards	1%		-	-	-	-	71,01 €
	Proc. 2 To Develop the Business Prospecting	45%	100%	-	-	-	-	3.230,46 €
	Proc. 3 To Manage the Installed Basis	30%		-	-	-	-	2.130,43 €
	Proc. 4 To Report the Commercial Action Plan	5%		-	-	-	-	355,07 €
	Proc. 5 To Draw up Proposals	10%		-	-	-	-	710,14 €
	Proc. 6 To Manage the Consultant Business Plan	5%		-	-	-	-	355,07 €
	Proc. 7 To Assess Clients' Satisfaction	3%		-	-	-	-	213,04 €
	Proc. 8 To Make the Follow Up of the Commercial Action Plan	1%		-	-	-	-	71,01 €
		100%	100%	0%	0%	0%	0%	7.136,25 €

Source: Compiled by author

Table 39 – Impact classification of each BDO's secondary process

		Business Impact				Efficiency Impact				Compliance Impact				Total Process Impact
		Loss Margins	Loss Revenues	Loss Clients	Loss Image	More Rework	More Scrap	More Work	More Time	Big Penalty	Penalty	Big Incongruence	Incongruence	
Processes	Proc. 1 To Communicate Contracts Awards	12	11	10	9	3	7	6	5	4	3	2	1	41
	Proc. 2 To Develop the Business Prospecting	3	3	3	3			2						126
	Proc. 3 To Manage the Installed Basis	3	3	3	3									126
	Proc. 4 To Report the Commercial Action Plan		2			2	2	2	3					79
	Proc. 5 To Draw up Proposals	3	3	3	3									126
	Proc. 6 To Manage the Consultant Business Plan	3	2	1										68
	Proc. 7 To Assess Clients' Satisfaction	1	2	3	3									91
	Proc. 8 To Make the Follow Up of the Commercial Action Plan	3	3	2	1									98

Source: Compiled by author

Annex H – FIN’s costs distribution and impact/benefits classification

Table 40 - FIN's Cost Distribution per each secondary process

		Staff	Materials	Rentings	Suppliers	Licenses	Other	TOTAL
		1.557,12 €	-	-	375,00 €	-	-	1.932,12 €
Processes	Proc. 1	To Manage the Monthly Billing	20%	-	-	50%	-	498,92 €
	Proc. 2	To Manage the Order Forms	5%	-	-	-	-	77,86 €
	Proc. 3	To Manage Purchases and Expenditures	4%	-	-	-	-	62,28 €
	Proc. 4	To Manage the Payroll Processing	35%	-	-	50%	-	732,49 €
	Proc. 5	To Manage Payments to Government and Suppliers	1%	-	-	-	-	15,57 €
	Proc. 6	To Manage Collections	10%	-	-	-	-	155,71 €
	Proc. 7	To Make the Daily Finance Report	10%	-	-	-	-	155,71 €
	Proc. 8	To Register and Check the Monthly Financial Information	15%	-	-	-	-	233,57 €
	To Manage the Payment of Food Allowance		-	-	-	-	0,00 €	
	To Check the Employees' Monthly Costs		-	-	-	-	0,00 €	
		100%	0%	0%	100%	0%	0%	1.932,12 €

Source: Compiled by author

Table 41 - Impact classification of each FIN's secondary process

		Business Impact				Efficiency Impact				Compliance Impact				Total Process Impact
		Loss Margins	Loss Revenues	Loss Clients	Loss Image	More Rework	More Scrap	More Work	More Time	Big Penalty	Penalty	Big Incongruence	Incongruence	
		12	11	10	9	8	7	6	5	4	3	2	1	117
Processes	Proc. 1	To Manage the Monthly Billing	2	3			3	2	2	2				61
	Proc. 2	To Manage the Order Forms			1		2	2	2					26
	Proc. 3	To Manage Purchases and Expenditures					1	1	1					69
	Proc. 4	To Manage the Payroll Processing					3	2	2	2		3		21
	Proc. 5	To Manage Payments to Government and Suppliers									3	3		93
	Proc. 6	To Manage Collections	3				3		3	3				39
	Proc. 7	To Make the Daily Finance Report					3			3				18
	Proc. 8	To Register and Check the Monthly Financial Information									1	3	1	3
	To Manage the Payment of Food Allowance												0	
	To Check the Monthly Costs of Employees												0	

Source: Compiled by author

Annex I – GM’s costs distribution and benefits classification

Table 42 - GM's Cost Distribution per each secondary process

		Staff	Materials	Rentings	Suppliers	Licenses	Other	TOTAL
		1.733,43 €	-	-	-	-	163,66 €	1.897,09 €
Processes	Proc. 1	To Assign Roles	5%	-	-	-	-	86,67 €
	Proc. 2	To Assure the Process Improvement Plan	20%	-	-	-	-	346,69 €
	Proc. 3	To Assure the Consolidated Business Plan	20%	-	-	-	-	346,69 €
	Proc. 4	To Define the Business Strategy	25%	-	-	-	100%	597,02 €
	Proc. 5	To Create New Business Areas	5%	-	-	-	-	86,67 €
	Proc. 6	To Redefine the Governance Model	20%	-	-	-	-	346,69 €
	Proc. 7	To Stablish Business/Technical Partnerships	5%	-	-	-	-	86,67 €
		100%	0%	0%	0%	0%	100%	1.897,09 €

Source: Compiled by author

Table 43 - Impact classification of each GM's secondary process

		Business Impact				Efficiency Impact				Compliance Impact				Total Process Impact	
		Loss Margins	Loss Revenues	Loss Clients	Loss Image	More Rework	More Scrap	More Work	More Time	Big Penalty	Penalty	Big Incongruence	Incongruence		
		12	11	10	9	8	7	6	5	4	3	2	1		
Processes	Proc. 1	To Assign Roles					2	2	2	2					52
	Proc. 2	To Assure the Process Improvement Plan	1	1	1	1	2	2	2	2					94
	Proc. 3	To Assure the Consolidated Business Plan	2	2	2	2	1	1	1	1					110
	Proc. 4	To Define the Business Strategy	3	3	3	3	3	3	3	3					204
	Proc. 5	To Create New Business Areas	1	1	1	1									42
	Proc. 6	To Redefine the Governance Model					2	2	2	2					52
	Proc. 7	To Stablish Business/Technical Partnerships	1	1	1										33

Source: Compiled by author

Annex J – HCO’s costs distribution and benefits classification

Table 44 - HCO's Cost Distribution per each secondary process

		Staff	Materials	Rentings	Suppliers	Licenses	Other	TOTAL	
		3.300,66 €	242,56 €	-	379,40 €	-	2.151,65 €	6.074,27 €	
Processes	Proc. 1	To Assure the Employees' Schedule (Entry/Exit)	1%		-		-	33,01 €	
	Proc. 2	To Manage the Absences	1%		-		-	33,01 €	
	Proc. 3	To Manage each Employee's Objectives Form	3%		-		-	99,02 €	
	Proc. 4	To Assure the Monthly Performance Appraisal	20%		-		-	660,13 €	
	Proc. 5	To Plan and Manage Holidays	2%		-		-	66,01 €	
	Proc. 6	To Manage the Entry and Exit of Employees	1%		-		-	33,01 €	
	Proc. 7	To Assure the Good Practices of the Dress Code	1%		-		-	33,01 €	
	Proc. 8	To Manage the Use of Headphones	1%		-		-	33,01 €	
	Proc. 9	To Manage the Candidates Database	1%		-		-	33,01 €	
	Proc. 10	To Recruit Employees	10%		-		-	330,07 €	
	Proc. 11	To Select Employees	5%		-		-	165,03 €	
	Proc. 12	To Look for Profiles	40%	50%	-	100%	-	50%	2.896,76 €
	Proc. 13	To Hire Employees	5%		-		-	165,03 €	
	Proc. 14	To Update the Recruitment Action Plan	1%		-		-	33,01 €	
	Proc. 15	To Communicate Opportunities, Articles and Innovation	5%		-		-	165,03 €	
	Proc. 16	To Assure Team Building Activities	3%	50%	-		-	50%	1.296,12 €
		100%	100%	0%	100%	0%	100%	6.074,27 €	

Source: Compiled by author

Table 45 - Impact classification of each HCO's specific process

		Business Impact				Efficiency Impact				Compliance Impact				Total Process Impact	
		Loss Margins	Loss Revenues	Loss Clients	Loss Image	More Rework	More Scrap	More Work	More Time	Big Penalty	Penalty	Big Incongruence	Incongruence		
		12	11	10	9	8	7	6	5	4	3	2	1		
Processes	Proc. 1	To Assure the Employees' Schedule (Entry/Exit)					1	1	2	2					37
	Proc. 2	To Manage the Absences			1	1	1	1	1	1					45
	Proc. 3	To Manage each Employee's Objectives Form	2				1	1	1	1					50
	Proc. 4	To Assure the Monthly Performance Appraisal	2	1			1	1	1	1					61
	Proc. 5	To Plan and Manage Holidays	1	1	1	1	2	1	2	2				2	89
	Proc. 6	To Manage the Entry and Exit of Employees			1	1			1	1				1	31
	Proc. 7	To Assure the Good Practices of the Dress Code			2								2		22
	Proc. 8	To Manage the Use of Headphones			2									1	19
	Proc. 9	To Manage the Candidates Database	2	2					2	2					64
	Proc. 10	To Recruit Employees	3	2			3	3	3	3					131
	Proc. 11	To Select Employees	1	1			1	2	1	1					54
	Proc. 12	To Look for Profiles	2	1			2	3	2	2					91
	Proc. 13	To Hire Employees	1	1			1	1	1	1		2			53
	Proc. 14	To Update the Recruitment Action Plan	2	1			2	3	2	2					91
	Proc. 15	To Communicate Opportunities, Articles and Innovations					1	1	2	2					37
	Proc. 16	To Assure Team Building Activities					3	2	2	2					60

Source: Compiled by author

Annex K – ICT’s costs distribution and benefits classification

Table 46 - ICT's Cost Distribution per each specific process

		Staff	Materials	Rentings	Suppliers	Licenses	Other	TOTAL	
		1.304,51 €	-	-	152,77 €	316,67 €	-	1.773,95 €	
Processes	Proc. 1	To Assure Files' Nomenclature	8%	-	-	0%	0%	-	104,36 €
	Proc. 2	To Assure the Desktop Background	2%	-	-	0%	0%	-	26,09 €
	Proc. 3	To Manage the Electronic Communication Model	38%	-	-	15%	75%	-	756,13 €
	Proc. 4	To Acquire Technological Material To Manage EGOI accesses	17%	-	-	75%	25%	-	415,51 €
	Proc. 5	To Manage Moodle Accesses	8%	-	-	0%	0%	-	104,36 €
	Proc. 6	To Manage the Intranet and ICT's Equipment Accesses	17%	-	-	10%	0%	-	237,04 €
	Proc. 7	To Assure the Initial Letters of each Employee	10%	-	-	0%	0%	-	130,45 €
		100%	0%	0%	100%	100%	0%	1.773,95 €	

Source: Compiled by author

Table 47 - Impact classification of each ICT's secondary process

		Business Impact				Efficiency Impact				Compliance Impact				Total Process Impact	
		Loss Margins	Loss Revenues	Loss Clients	Loss Image	More Rework	More Scrap	More Work	More Time	Big Penalty	Penalty	Big Incongruence	Incongruence		
		12	11	10	9	8	7	6	5	4	3	2	1		
Processes	Proc. 1	To Assure Files' Nomenclature				2		2		1			1	2	37
	Proc. 2	To Assure the Desktop Background			1									1	10
	Proc. 3	To Manage the Electronic Communication Model			1		2	1	2	2				1	55
	Proc. 4	To Acquire Technological Material To Manage EGOI accesses							3	3					33
	Proc. 5	To Manage Moodle Accesses			1		1	1	1	1					35
	Proc. 6	To Manage the Intranet and ICT's Equipment accesses					1	1	1	1					26
	Proc. 7	To Assure the Initial Letters of each Employee							1	1				1	12

Source: Compiled by author

Annex L – MS’ costs distribution and benefits classification

Table 48 - MS' Cost Distribution per each secondary process

		Staff	Materials	Rentings	Suppliers	Licenses	Other	TOTAL
		1.034,84 €	290,07 €	-	7.006,45 €	-	-	8.331,35 €
Processes	Proc. 1	To Plan and Manage Training	23%	-	70%	-	-	5.142,53 €
	Proc. 2	To Issue Training Certificates	15%	20%	-	10%	-	913,88 €
	Proc. 3	To Prepare Training Sessions	5%	-	-	-	-	51,74 €
	Proc. 4	To Update the Training Brochure	1%	-	-	-	-	10,35 €
	Proc. 5	To Prepare the Training Logistics	10%	-	-	-	-	103,48 €
	Proc. 6	To Manage the Training Material Orders	5%	80%	-	20%	-	1.685,08 €
	Proc. 7	To Manage the Training's Closing and Assessment	10%	-	-	-	-	103,48 €
	Proc. 8	To Manage the Training's Knowledge Base	1%	-	-	-	-	10,35 €
	Proc. 9	To Assess Trainers	10%	-	-	-	-	103,48 €
	Proc. 10	To Manage Certificates' Maintenance	15%	-	-	-	-	155,23 €
	Proc. 11	To Assure the DGERT Certification	5%	-	-	-	-	51,74 €
		100%	100%	0%	100%	0%	0%	8.331,35 €

Source: Compiled by author

Table 49 - Impact classification of each MS' secondary process

		Business Impact				Efficiency Impact				Compliance Impact				Total Process Impact	
		Loss Margins	Loss Revenues	Loss Clients	Loss Image	More Rework	More Scrap	More Work	More Time	Big Penalty	Penalty	Big Incongruence	Incongruence		
		12	11	10	9	8	7	6	5	4	3	2	1		
Processes	Proc. 1	To Plan and Manage Training	1	1	2	3	2	1	2	3					120
	Proc. 2	To Issue Training Certificates				3	2	1	2	2		2		76	
	Proc. 3	To Prepare Training Sessions	1	1	1	2	2	1	2	2		3	1	103	
	Proc. 4	To Update the Training Brochure	2	2	2	2	2	2	2	1		2		135	
	Proc. 5	To Prepare the Training Logistics	1	1	1	2	2	1	2	2		1	1	99	
	Proc. 6	To Manage the Training Material Orders	1	1	1	1	2	1	2	2		1	1	90	
	Proc. 7	To Manage the Training's Closing and Assessment	1	1	1	2	2	1	2	2				97	
	Proc. 8	To Manage the Training's Knowledge Base	1	1	1	2	2	1	2	2			1	97	
	Proc. 9	To Assess Trainers	2	2	2	2	2	2	2	1		2		135	
	Proc. 10	To Manage Certificates' Maintenance				2	2	1	2	2		3		69	
	Proc. 11	To Assure the DGERT Certification	1	2	2	2	2	1	1	2				111	

Source: Compiled by author

Annex M – OM’s costs distribution and benefits classification

Table 50 - OM's Cost Distribution per each secondary process

		Staff	Materials	Rentings	Suppliers	Licenses	Other	TOTAL
		232,03 €	157,05 €	4.910,17 €	871,04 €	-	-	6.170,29 €
Processes	Proc. 1	To Manage the Work in the "Open Space"	10%		100%			4.933,38 €
	Proc. 2	To Manage the Office's Cleaning	5%	20%		40%		391,43 €
	Proc. 3	To Manage Mailings	15%					34,80 €
	Proc. 4	To Manage the Office Material Stock	10%	80%		60%		671,46 €
	Proc. 5	To Manage the Opening and Closing of the Office	5%					11,60 €
	Proc. 6	To Manage the Relationship with the Landlord	5%					11,60 €
	Proc. 7	To Manage the Arrangement of the Office's Spaces	15%					34,80 €
	Proc. 8	To Manage the Office's Safety	5%					11,60 €
	Proc. 9	To Manage Suppliers	30%					69,61 €
		100%	100%	100%	100%	0%	0%	6.170,29 €

Source: Compiled by author

Table 51 - Impact classification of each OM's secondary process

		Business Impact				Efficiency Impact				Compliance Impact				Total Process Impact	
		Loss Margins	Loss Revenues	Loss Clients	Loss Image	More Rework	More Scrap	More Work	More Time	Big Penalty	Penalty	Big Incongruence	Incongruence		
		12	11	10	9	8	7	6	5	4	3	2	1		
Processes	Proc. 1	To Manage the Work in the "Open Space"				2	2	2	2					2	54
	Proc. 2	To Manage the Office's Cleaning			3	1	1	1	1					2	55
	Proc. 3	To Manage Mailings	1	1	1	2	1	2	1			2		2	76
	Proc. 4	To Manage the Office Material Stock				3	2	3	3					2	73
	Proc. 5	To Manage the Opening and Closing of the Office			2	2		1	1					1	46
	Proc. 6	To Manage the Relationship with the Landlord			1	1	1	1	1						35
	Proc. 7	To Manage the Arrangement of the Office's Spaces				2	2	2	2						52
	Proc. 8	To Manage the Office's Safety								3		3			18
	Proc. 9	To Manage Suppliers	1			1	1	1	1				2		40

Source: Compiled by author

Annex N – PMO’s costs distribution and benefits classification

Table 52 - PMO's Cost Distribution per each secondary process

		Staff	Materials	Rentings	Suppliers	Licenses	Other	TOTAL
		834,27 €	-	-	-	-	-	834,27 €
Processes	Proc. 1	To Assure the Integrated Weekly Planning	30%	-	-	-	-	250,28 €
	Proc. 2	To Assure the Status Report	2%	-	-	-	-	16,69 €
	Proc. 3	To Assure the Timesheet's Filling in and Approval	5%	-	-	-	-	41,71 €
	Proc. 4	To Assure the Compliance Report	10%	-	-	-	-	83,43 €
		To Assure the Tailoring of Internal Methodology of Project Management						
		To Assure the Physical Progress per Type of Service						
	Proc. 5	To Manage Change Requests	1%	-	-	-	-	8,34 €
	Proc. 6	To Assure Project Charters	4%	-	-	-	-	33,37 €
	Proc. 7	To Assure the Planning's Quality Control	4%	-	-	-	-	33,37 €
	Proc. 8	To Assure the Dashboard Portfolio	3%	-	-	-	-	25,03 €
	Proc. 9	To Assure the Project Plan	5%	-	-	-	-	41,71 €
	Proc. 10	To train users	5%	-	-	-	-	41,71 €
	Proc. 11	To support EPM's users	25%	-	-	-	-	208,57 €
Proc. 12	To update EPM's configurations	3%	-	-	-	-	25,03 €	
Proc. 13	To Manage EPM accesses	3%	-	-	-	-	25,03 €	
		100%	0%	0%	0%	0%	0%	834,27 €

Source: Compiled by author

Table 53 - Impact classification of each PMO's secondary process

		Business Impact				Efficiency Impact				Compliance Impact				Total Process Impact			
		Loss Margins	Loss Revenues	Loss Clients	Loss Image	More Rework	More Scrap	More Work	More Time	Big Penalty	Penalty	Big Incongruence	Incongruence				
Processes	Proc. 1	To Assure the Integrated Weekly Planning	1	11	10	9	8	7	6	5	4	3	2	1	2	77	
	Proc. 2	To Assure the Status Report	1	1			2	2	2	2						1	50
	Proc. 3	To Assure the Timesheet's Filling in and Approval	1	1			2	1	2	2				2			72
	Proc. 4	To Assure the Compliance Report					2	1	1	1						1	35
		To Assure the Tailoring of Internal Methodology of Project Management															
		To Assure the Physical Progress per Type of Service															
	Proc. 5	To Manage Change Requests	1				2	2	2	2							64
	Proc. 6	To Assure Project Charters	1				2	2	2	2				2			68
	Proc. 7	To Assure the Planning's Quality Control					1	1	1	1							26
	Proc. 8	To Assure the Dashboard Portfolio	2				2	2	2	2							76
	Proc. 9	To Assure the Project Plan	2	1		1	2	2	2	2							96
	Proc. 10	To train users					2		1	1						1	28
	Proc. 11	To support EPM's users					1		1	1						1	20
Proc. 12	To update EPM's configurations					1		1	1						1	20	
Proc. 13	To Manage EPM accesses					1		1	1						1	20	

Source: Compiled by author

Annex O – MKO’s costs distribution and benefits classification

Table 54 - MKO's Cost Distribution per each secondary process

		Staff	Materials	Rentings	Suppliers	Licenses	Other	TOTAL
		1.375,04 €	17,41 €	-	835,00 €	38,00 €	-	2.265,44 €
Processes	Proc. 1	To Update the EGOI	5%	-	-	-	-	68,75 €
	Proc. 2	To Update the Website	20%	-	-	-	-	275,01 €
	Proc. 3	To Manage the Use of the Corporative Image	75%	100%	-	100%	100%	-
		100%	100%	0%	100%	100%	0%	2.265,44 €

Source: Compiled by author

Table 55 - Impact classification of each MKO's secondary process

		Business Impact				Efficiency Impact				Compliance Impact				Total Process Impact		
		Loss Margins	Loss Revenues	Loss Clients	Loss Image	More Rework	More Scrap	More Work	More Time	Big Penalty	Penalty	Big Incongruence	Incongruence			
Processes	Proc. 1	To Update the EGOI	2	3	3		1	1	1	1						113
	Proc. 2	To Update the Website	1	1	1	2	2	1	2	2					1	97
	Proc. 3	To Manage the Use of the Corporative Image	1	1	1	2	2	1	2	2					1	97

Source: Compiled by author

Annex P – QCO’s costs distribution and benefits classification

Table 56 - QCO's Cost Distribution per each secondary process

		Staff	Materials	Rentings	Suppliers	Licenses	Other	TOTAL
		161,65 €	-	-	-	-	-	161,65 €
Processes	Proc. 1	To Assure Documents' Control	5%	-	-	-	-	8,08 €
	Proc. 2	To Assure the Control of Records	1%	-	-	-	-	1,62 €
	Proc. 3	To Manage the Internal Audit	20%	-	-	-	-	32,33 €
	Proc. 4	To Assure the Non-Conformities' Control	5%	-	-	-	-	8,08 €
	Proc. 5	To Manage Corrective Actions	2%	-	-	-	-	3,23 €
	Proc. 6	To Manage Preventive Actions	3%	-	-	-	-	4,85 €
	Proc. 7	To Manage the Elaboration of Procedures	60%	-	-	-	-	96,99 €
		To Assure the Good Practices in Emails						0,00 €
	Proc. 8	To Assure Quality and Accurateness in the Writing Process	2%	-	-	-	-	3,23 €
Proc. 9	To Assure the Good Practices in the Scheduling and Running of Meetings	2%	-	-	-	-	3,23 €	
		100%	0%	0%	0%	0%	0%	161,65 €

Source: Compiled by author

Table 57 - Impact classification of each QCO's secondary process

		Business Impact				Efficiency Impact				Compliance Impact				Total Process Impact		
		Loss Margins	Loss Revenues	Loss Clients	Loss Image	More Rework	More Scrap	More Work	More Time	Big Penalty	Penalty	Big Incongruence	Incongruence			
Processes	Proc. 1	To Assure Documents' Control	12	11	10	9	8	7	6	5	4	3	2	1	2	64
	Proc. 2	To Assure the Control of Records					2	1	2	1					1	41
	Proc. 3	To Manage the Internal Audit				2	2	2	2	2					1	71
	Proc. 4	To Assure the Non-Conformities' Control					3	3	3	3					2	80
	Proc. 5	To Manage Corrective Actions					3	3	3	3					3	81
	Proc. 6	To Manage Preventive Actions					2	2	2	2					2	54
	Proc. 7	To Manage the Elaboration of Procedures	1	1	1	1	2	2	2	2			1		1	97
		To Assure the Good Practices in Emails														
	Proc. 8	To Assure Quality and Accurateness in the Writing Process				1	2	2	2	2					1	62
Proc. 9	To Assure the Good Practices in the Scheduling and Running of Meetings					2	2	2	2					1	53	

Source: Compiled by author

Sheet 2 – Other Direct Costs

Table 59 - Excel Template (Sheet 2) to be used for the collection of data regarding other direct costs incurred by each Competency Center

Description	Main Competency Centers		
	PMCC	BACC	BMCC
Staff			
Cost 1			
Cost 2			
Cost 3			
Cost 4			
Cost 5			
Cost 6			
Cost 7			
Cost 8			
Cost 9			
Cost 10			
Cost 11			
Cost 12			
Cost 13			
Cost 14			
Cost 15			
Cost 16			
Cost 17			
Cost 18			
TOTAL			

Source: Compiled by author

Sheet 3 – Indirect Costs

Table 60 - Excel Template (Sheet 3) to be used for the collection of data regarding overhead/indirect costs

	Staff				Materials				Renting				Suppliers				Licenses				Other				Staff	Materials	Average			Other	TOTAL		
	Jan	Feb	Mar	(...)	Jan	Feb	Mar	(...)	Jan	Feb	Mar	(...)	Jan	Feb	Mar	(...)	Jan	Feb	Mar	(...)	Jan	Feb	Mar	(...)			Renting	Suppliers	Licenses				
BDO																																	
FIN																																	
GM																																	
HCO																																	
ICT																																	
MKO																																	
MS																																	
OM																																	
PMO																																	
QCO																																	

Source: Compiled by author

Sheet 4 – Revenues

Table 61 - Excel Template to be used for the collection of data regarding revenues

TOTAL REVENUES														
	Analyzed Months												Average	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	%
PMCC														
BACC														
BMCC														
TOTAL														

TOTAL TRAINING REVENUES														
	Analyzed Months												Average	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	%
PMCC														
BACC														
BMCC														
TOTAL														

Source: Compiled by author

Sheet 5 – ABC Application

PMCC			BACC			BMCC		
Cost Drivers			Cost Drivers			Cost Drivers		
1. Number of Employees	X		1. Number of Employees	X		1. Number of Employees	X	
2. Global Revenues	X		2. Global Revenues	X		2. Global Revenues	X	
3. Total Training Revenues	X		3. Total Training Revenues	X		3. Total Training Revenues	X	
Indirect Costs	Imp. Key	Allocated Costs	Indirect Costs	Imp. Key	Allocated Costs	Indirect Costs	Imp. Key	Allocated Costs
BDO			BDO			BDO		
FIN			FIN			FIN		
GM			GM			GM		
HCO			HCO			HCO		
ICT			ICT			ICT		
MKO			MKO			MKO		
MS			MS			MS		
OM			OM			OM		
PMO			PMO			PMO		
QCO			QCO			QCO		
Direct Costs			Direct Costs			Direct Costs		
TOTAL			TOTAL			TOTAL		
TOTAL COSTS								
			Cost Contribution		BCR			
			PMCC					
			BACC					
			BMCC					

Figure 18 - Excel Template (Sheet 5) to be used for the final application of ABC Model³⁸

³⁸ Source: Compiled by author

Annex R – Excel Templates (for the cost distribution and benefits classification), to provide to each supporting area

Table 62 - Excel Template to be used for the collection of data regarding each process' cost distribution and benefits/impact classification

Processes	Description	Staff	Materials	Rentings	Suppliers	Licenses	Other	TOTAL	Process Cost Rank	Cost Norm Scale	Business Impact				Efficiency Impact				Compliance Impact				Total Process Impact	Process Impact Rank	Impact Norm Scale
											Loss Margins	Loss Revenues	Loss Clients	Loss Image	More Rework	More Scrap	More Work	More Time	Big Penalty	Penalty	Big Incongruence	Incongruence			
Proc. X	XXXXXX										12	11	10	9	8	7	6	5	4	3	2	1			
Proc. X	XXXXXX																								
Proc. X	XXXXXX																								
Proc. X	XXXXXX																								
Proc. X	XXXXXX																								
Proc. X	XXXXXX																								
Proc. X	XXXXXX																								
(...)	(...)																								

Source: Compiled by author

Annex S – Example of the Complementary Analysis' Output Graph

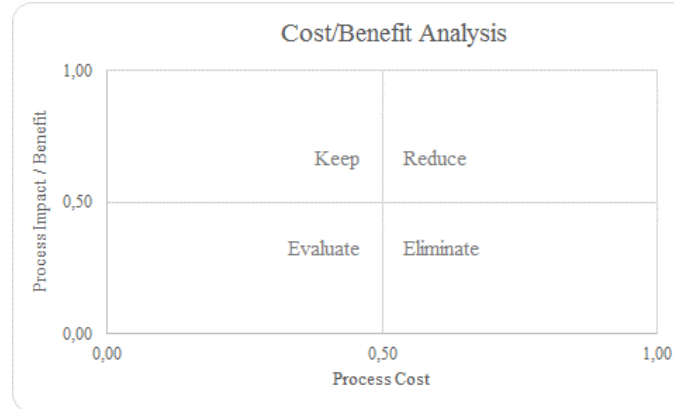


Figure 19 - Template of the Output Graph to obtain from the filling in of Table 62³⁹

³⁹ Source: Compiled by author