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Improvements in the invoicing and posting processes of the non-PO vendors in the GBS Benelux
for Boston Scientific

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Trabajo de Grado

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Glossary

AP: Accounts payable

GBS: Global Business Services

PTP: Purchase to pay

VM: Vendor master

SAP: Systems Applications and Products in Data Processing

OP: Purchase order

Benelux: Belgium, Netherlands and Luxemburg

DD: direct debit

SD: Scanning date

CD: Coding date

Abstract

Boston Scientific is an American company created in 1980 with headquarters in the United States, and business units on all the continents. Furthermore, the company operates in the life science health sector with the creation and selling of medical devices, managing a B2B business model with the hospitals as a client. The areas of research are Endoscopy, Cardiology, Neuromodulation, Peripheral interventions, Rhythm, and Urology. Their mission is to improve the diagnostic and treatment of diseases in the specialties mentioned above.

The Customer Fulfillment Center is located in the Netherlands. This business unit oversees the product distribution for the European continent. The Customer Fulfillment Center is a structure mostly with global business services (GBS) models. It allows the standardization and centralization of the activities. Moreover, there is a GBS for the Benelux entities in which all the accounting and reporting activities are done.

Currently, the account payable team of the Belgium entity has issues with the invoicing and posting processes., This has a negative impact on the reporting activities of the teams. The invoicing and posting processes are managed by the GBS Benelux local offices and the GBS of Costa Rica through SAP and Ariba software.

The main issues are the accumulation of old payments in SAP without the invoices documents to match the transactions. Due to that, it is not possible to keep updated the vendor ledger in the system. The most concerning cases are the no purchase order vendors because the posting process is more complex.

The solution is to explain the invoicing structure of the vendors to find the exceptions that will be present in the posting process. Once the exceptions are identified it is needed to address the correct posting process. Finally, when all the documents are in SAP, it is possible to clear the account and update the vendors 'ledger, by doing this the research goal will be achieved.

The implementation plan has a projected cost of 1000 euros. The cost reflects the resources needed for the investigation time used to find the missing invoices, the creation of guidelines that will be used for AP agents training, and the time spend in the update of the vendor's ledger in SAP.

On the other hand, the benefits are estimated at 2, 000 euros. This calculation was made by the reduction of time created and the savings associated.

Key Words

Invoicing process; accounts payable; Belgium; posting process; vendor; SAP; improvements; savings; GBS; billing structure; debit balance; credit balance; cost allocation; posting key.

Resumen

Boston Scientific es una empresa estadounidense creada en 1980 con sede en Estados Unidos y unidades de negocio en todos los continentes. Además, la empresa opera en el sector de la salud de las ciencias de la vida con la creación y venta de dispositivos médicos, gestionando un modelo de negocio B2B con los hospitales como cliente. Las áreas de investigación son Endoscopia, Cardiología, Neuromodulación, Intervenciones periféricas, Ritmo y Urología. Su misión es mejorar el diagnóstico y el tratamiento de las enfermedades en las especialidades mencionadas.

El Customer Fulfillment Center está situado en los Países Bajos. Esta unidad de negocio supervisa la distribución de productos para el continente europeo. El Customer Fulfillment Center es una estructura que, en su mayoría, responde a modelos de servicios empresariales globales (GBS). Permite la estandarización y centralización de las actividades. Además, existe un GBS para las entidades del Benelux en el que se realizan todas las actividades de contabilidad y reporte. Actualmente, el equipo de cuentas por pagar de las entidades belga tiene problemas con los procesos de facturación y contabilización, lo que repercute negativamente en las actividades de información de los equipos. Los procesos de facturación y contabilización son gestionados por las oficinas locales de GBS Benelux y GBS de Costa Rica a través del software SAP y Ariba.

Los principales problemas son la acumulación de pagos antiguos en SAP sin que los documentos de las facturas coincidan con las transacciones. Debido a ello, no es posible mantener actualizado el libro de proveedores en el sistema. Los casos más preocupantes son los de los proveedores sin orden de compra porque el proceso de contabilización es más complejo.

La solución es explicar la estructura de facturación de los proveedores para encontrar las excepciones que se presentarán en el proceso de contabilización. Una vez identificadas las

excepciones, es necesario abordar el proceso de contabilización correcto. Por último, cuando todos los documentos estén en SAP, será posible compensar la cuenta y actualizar el libro mayor de los proveedores, con lo que se alcanzará el objetivo de la investigación.

El plan de implementación tiene un coste previsto de 1000 euros. El coste refleja los recursos necesarios para el tiempo de investigación utilizado para encontrar las facturas que faltan, la creación de directrices que se utilizarán para el curtido de los agentes AP y el tiempo empleado en la actualización del libro mayor del proveedor en SAP. Por otro lado, los beneficios se estiman en 2, 000 euros. Este cálculo se ha realizado por la reducción del tiempo creado y el ahorro asociado.

Palabras clave

Proceso de facturación; cuentas a pagar; Bélgica; proceso de contabilización; proveedor; SAP; mejoras; ahorro; GBS; estructura de facturación; saldo deudor; saldo acreedor; asignación de costes; clave de contabilización.

1 Introduction

1.1 Company Background

Boston Scientific is a company in the life science and health sector with more than 40 years of operations in the market. The selling business model of the company is business to business, working with health and care entities to improve the medical diagnostic and treatment in areas such as Endoscopy, Cardiology, Neuromodulation, Peripheral interventions, Rhythm and Urology.

1.1.2 Vision. Their vision is “transforming lives through innovative medical solutions that improve the health of patients around the world” (B. Scientific, 2022). Currently, the company has international presence with the global headquarter in the United States and two secondary headquarters in Europe and Asia. Furthermore, the company has other business centers distributed around the world. Those are classified in the customer fulfillment center; the institutes for advancing science and the manufacturing plants.

The Netherlands has one of the Customer Fulfillment Center. This business unity oversees the product distribution for the European continent.

Around all the teams that work for successfully achieve the goal of quality distribution service, there is the GBS department. GBS translate Global Business Services which main purpose is to centralize the work of the business unit through the standardization and consolidation of the accounting reports, in order to offer a high-quality global business solutions and support services.

1.2 Problem Statement

1.2.1 Context. To get a better understanding of the problem statement of this report a brief explanation of the GBS accounts payable system and networking given.

The accounts payable team oversees the process of payment to the vendors that are still unpaid by the company. The AP team is part of the purchase to pay process known as PTP. In the PTP process, AP team is responsible of the following activities: firstly, the invoicing of the products and services; checking the invoice details and amounts are correct; send the invoice and information to the GBS Costa Rica for the posting in the systems; make sure the cost is in the right G/L account and cost center; make the payments and finally, match the transaction in SAP to close open balances.

Therefore, GBS Benelux needs to work really close with GBS Costa Rica. GBS Costa Rica is responsible for the correct entry of invoices into the systems.

To carry on with all the operations mentioned above, the company uses two main systems. Firstly, System Analysis Program Development more commonly known as SAP. This software centralizes data management so that all the business units have the same information regarding its own departments and the others that conform the company. (SAP, 2022).

Secondly, SAP Ariba, known as Mybuy enable together with SAP to process the electronic invoices and schedule the payments that will be reported further in SAP to track the operations and have all the information to make the accountancy needed.

Finally, to have a complete overview of the process is important to mention that the company manages two categories of purchases. At first the purchases order known as PO, in which the

vendor has a PO number, and the process is pre-approved. The other category is the non-PO, in which the vendor does not have a PO number and GSB needs to approve the invoice directly.

1.2.2 Problem. There are several steps to complete the operations carry out by the AP team. Furthermore, the non-PO category represent a challenge for the company nowadays. The non-PO purchases are creating a constant delayed in the operations, increasing the average time to solve a problem. Besides that, most of the vendors present old open items in SAP which creates credit balances and affects the quality of the service.

The most common issues are missing invoices in the system; unclear posting processes; multiple vendor numbers; unacquired posting key.

1.3 Current Situation

Nowadays, the GBS department is involved in the accounting services of the local finance entities. Each local entity manages their report process with assistance of the GBS. The variety of services, in figure 1 is possible to visualize the 10 categories of services and the delivery teams. (G. Location, 2022).

Figure 1 GBS current services



Source: 2022 Boston Scientific

Nevertheless, the scope of this study is the accounts payable performance in the delivery of purchasing and payment services for Benelux GBS. Benelux is the merge of services of Belgium, The Netherlands and Luxemburg business units.

Currently Benelux manages 5 company codes 3 for the Netherlands and 2 for Belgium. Luxemburg operations are included in Belgium. Moreover the 2 company codes of Belgium has on average 5 vendors with non-PO and direct debit. This is important since those are the cases to investigate and improve.

1.4 Desire situation

The ideal scenario for the company is to avoid the current invoicing and payment issues that non-po vendors with direct debit present. Furthermore, to clean the old open item to eliminate the debit or credit balances. Also maintain updated vendor's ledger to minimize the searching process of unposted payments or invoices. This would reduce the time used in solving the nowadays issues, and savings in labor hours.

1.5 GAP

The information needed to analyze and propose a recommendation is related to all the steps in the since the creation of the vendor's profile until the final payment. Therefore, Information and outputs of the vendor master team, vendors contact person and accounts payable team will be needed.

1.6 Company goal

The company objective is to find sustainable solutions to improve the purchase- payment process. Reduce to zero the open balance of items from 2018 to 2021 in SAP for the Belgium entities. In order to have an update ledger of the vendors at the end of the second quarter.

1.7 Research questions

Literature review

1. What is the impact of accounts payables in the balance sheet?
2. What KPIs can measure AP improvements?

Current situation

3. On average how long take to process a new purchase or bill?
4. Which are the characteristics that a vendor should have to adopt direct debit?
5. Why the approval flow of the invoices are different? Why some invoices need 3 or 5 different approval process?
6. What are the advantages and disadvantages of set direct debit as payment method?
7. What is the impact in the accountancy when a company make weekly payments?
8. Why in some cases the vendors have more than one numbers in SAP?
9. What factor concerns you the most and is a priority to be solve in the GBS team?

Desire situation

10. What is your expectation or goal for the team?

1.8 Methodology

The methodology to answer the research question will be mostly qualitative. The use of structure interviews and feedbacks with people across all the teams involved in the process.

Moreover, as a secondary source of information the use of the SAP balances; the PTP performance reports and the payment proposal will be used to conduct this research

The primary source, a series of interviews with the GBS team member. Starting with the senior accountant of Belgium, Ayhan Ayas to find out the performance of the accounts payable for this country and to give answer about the doubts in the payment process. The objective here is to compare the expectations in process that the GBS has versus the process that is currently carry out.

Furthermore, to see the performance of the Netherlands. Interviews with the finance analyst Tim Janssen. The purpose is to analyze in parallel the process of both countries to fined possible improvements base in that country.

Secondly the accounts payable analyst John O'Neill discuss the methodology that the company use to receive an invoice and processes it in the system. He will give feedback about the difficulties present in these operations.

In addition, Costa Rica GBS will be also interviewed. In this team the analysts in finance and data management Ignacio Conejo and Angie Madrigal will be answering questions about the posting process.

Finally, and to guide the recommendations base on the main strategies of the department interview with the manager of the GBS Beneux local finance Roel Wetzel will be conducted to realize what is the focus of the strategy and base on that line the recommendations and KPIs.

Table 1, Research methodology questions

Question	Desk or Field	Source
1. What is the impact of accounts payables in the balance sheet?	Field	Corporate Finance. 4 th edition, 2017
2. Which are the 2 KPIs that to measure AP improvements?	Desk or Field	interviews with Roel Wetzel Overview of methods and techniques for assessing process effectiveness Production. 2011.
3. On average how long take to process a new purchase or bill?	Field	Accounts Payable Standard Operating Procedures. 2022 company document
4. Why the approval flow of the invoices are different? Why some invoices need 3 or 5 different approval process?	Field	Accounts Payable Standard Operating Procedures. 2022 company document

5. Why in some cases the vendors have more than one numbers in SAP?	Desk or Field	SAP vendor list Interview with, Angie Madrigal and Ignacio Conejo
6. Which is the impact in the accountancy when a company make weekly payments?	Desk	Interviews Ayhan Ayan, Tim Janssens and Roel Wetzel
7. What are the advantages of set a direct debit?	Desk	Interviews with the GBS Benelux team members
8. What are the disadvantages of set a direct debit	Desk	Interviews with Jhon O'Neill; Ayah Ayan and Tim Janssen
9. What factor concerns you the most and is a priority to be solve in the GBS team?	Desk	Interviews to all GBS members

10. What is your expectation or goal for the team? (1 or 2 max)	Desk	Interviews to all GBS members
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Source: own creation. Research methodology

1.8.1 Limitations. The limitations in this research are related to the complexity of the process. To carry out the AP process several teams needs to work in synchronize, due to that, the levels of communications can difficult the understanding of the whole process. Furthermore, the invoice is a document created by the vendors, therefore, the information and structure of the documents will be different. Currently, is not a record of the vendors exception.

The variety of literature review for tools to measure account payables improvements is limited. It is a challenge to find new approaches.

2 Literature Review

To better understand the problem statement, a literature study has been conducted. The main topic in the literature study is accounts payable. This topic is supported by several sub-topics namely: accruals accounting, the liability management, financial ratios, and KPs to measure the performance.

2.1 Accounts payables

2.1.1 Definition .Accounts payables is defined as the amount in the short-term obligations that must be paid to the suppliers because the company purchased services or goods by credit. (Berk & DeMarzo, 2017).

Accounts payables can also be described in terms of functions. It consists of identifying and recording economic transactions done by the company for these three purposes:

Firstly, the operational purpose that consist in gathering all the information of the supplier that the company needs to make the purchase. Secondly, the monitoring purpose, which is about the actions that the company will carried out to ensure the fulfilment of the term and conditions set by both parties. Finally, the reporting purpose is to provide information in the internal and external aspect for the decision-making process.. (L. Sedevich, 2019).

The authors Berk, DeMarzo and Sedevich approach accounts payables as a transaction that has to be made in the short term by company as a one of its financial responsibilities. Moreover, to achieve it successfully, the company has to carry out different operations based on the terms and conditions negotiated with the supplier.

2.1.2 Accounting recognition. Accounts payables is one of the accounts that conform the liabilities. Base on the accounting principle the liabilities grow through credits and decrease by debit transactions (H.Ortiz, 2018). Therefore, the accounts payables work within the same accounting principle.

Felix Lessambo (2018) defines the current liabilities as financial obligations that must be liquidated within a year or a normal operating cycle that is different depending on the company.

Additionally, due to the fact that the accounts payable is a current liability, it will impact in the net working capital, the available capital in the short term to run a business (Berk & DeMarzo, 2017).

Subsequently some of the consequences of having an inadequate working capital are facing problems to pay the short-term liabilities, problems in the liquidity and it also might increase the rates of interest to access loans or borrowing funds. Further it will affect the stability of the business (Palanivelu, 2013).

In addition, there are some credits that do not get paid within the payment terms deal with the supplier. For these cases the payables are considered default and it can cause an increase in the original value to pay. Moreover the suppliers will be less open to grant credit (F.Lessambo, 2018).

Regarding the impact of accounts payables, it is visible that there are some risks associated if there is not a properly management of this account. The authors Ortiz, Berk, DeMarzo and Palanivelu highlight the complications in the liquidity, rising difficulties in the credit access and the possible penalties that a company might assume when there is an issue in the accounts payable operations.

However, if there is an adequate management of the accounts payable, the company can use it as a source of cash since those work as funds that the company borrow from the suppliers (F.Lessambo, 2018). Looking in the cash flow perspective Berk and De Marzo (2017) explain that the accounts payable amount represents a potential increase in the cash available to the company. A good management and control of the processes related to accounts payable will give the company information about the performance of the AP department. This information is valuable for companies that want to expand to other markets or want to diversify their suppliers.

2.2 Accruals

2.2.1 Definition. “The attempt to record the financial effects of transactions and other events in the periods in which those transaction or events occur rather than only in the periods in which cash is received or paid by the business, using all the techniques developed by accountants to apply the matching principle” (F.Lessambo, 2018).

Also define as recording method that reflects the transitions as credit purchases when it happened instead when the exchange of money of that operation occurs

Accruals are used in the record of accounts payable when the transaction is made and when the payment is not done on time. Basically, the company created accruals per each month of delay so they can track the amount of debt easily otherwise the companies will just have one big amount of debt at the account closing.

2.3 Measure performance

Measuring the performance of accounts payables and other accounts is a key activity of the making decision process. Finding the correct tools to measure the performance allows to compare with the industry and, through time, to the progress of the accounts.

The importance of it is to find the factors that contribute to the result. Separating the factors for a further analysis will give the company a guideline to know what needs to be improved, and even more to innovate. Therefore, this part of the literature review will be about topics related to ratios and KPIs.

2.3.1 Ratios. “Ratio is simply a number expressed in terms of another” (R.Palanivelu, 2013). This author defines the ratios as numerical value that is a result of a mathematical comparison of two variables. It can be expressed in percentages, proportions and quotient too. The importance of the financial ratios as an analysis tool is the quality of information to support the decision-making process in the companies. Financial ratios offer a diagnosis of the financial health of a business. Furthermore, the information that this tool offers can be used in several departments besides the finances related (R.Palanivelu, 2013).

Ortiz (2016) enlists some of the advantages that financial ratios contribute to the business analysis:

1. Simplify financial statements
2. Facilitates the comparison between firms
3. Guide the planning and forecasting activities
4. Aid to the internal analysis of the company
5. Aid to set goals and strategies

The financial ratios have different categories. Those categories give information about the different components of the financial performance of a business. Firstly, the Profitability, as the name mentions, is a set of ratios that gives information about the business ability of generating profit and the value related

Secondly, the liquidity and solvency ratios that will give outputs of the resources that the company has in the long or short term. Thirdly, working capital ratios will define how efficient the firm use the working capital. There is also leverage ratios that offer an overview of the sources and levels of financing a business.

Valuation ratios grade the value of a company and are useful information for the stakeholders. Moreover, Operating ratios, is a set of ratios will analyse the performance in terms of efficacy and value added of the business (Berk & DeMarzo, 2017).

Therefore, based on the categories of ratios and the main topic accounts payable, some financial ratios are explained in more detail since those represent and work as a measurement tool for accounts payable performances.

Firstly, the current ratio analyses the ability of a company to pay the current liabilities. It give an overview of the cash levels and the ability of turn assets in cash therefore, it shows how easy a company can raise money from the assets to cover the financial obligations (F.Lessambo, 2018).

This ratio works for measure the accounts payable performance. It will be possible to analyse if the accounts payable level is affecting the ratio or if is another liability account. Moreover, to see if the level of current assets is lower to cover the short-term obligations and take actions to prevent a bad outcome. An example will be negotiated with the suppliers to have more time to pay with a lower penalty.

Secondly, the accounts payable day. These ratios show the relation between the accounts payable and the average daily cost of sale. This ratio shows the total amount paid to the suppliers and the inventory sold

Finally, the accounts payable turnover day, shows on a year how many days the company take to pay off the suppliers. To be calculated it the company needs to know the values of the opening accounts payable and the closing accounts payable. The sum of both divided by two will give as a result the accounts payable turn over. The final step is taken that result and divided by 365. This will give the result in terms of days (K. Sinra, 2021).

The three financial ratios explained above can give the company an overview of the performance and status of accounts payable. It can be used to have more information regarding this subaccount of the liabilities.

Table 2, financial ratios

Ratio	Formula
Current ratio	Total current assets/total current liabilities
Account payable days	Accounts payable / average daily cost of sale
Accounts payable turnover	$[(\text{opening AP} + \text{closing AP})/2]/365$

Source: Héctor Ortiz Anaya. (2018). Financial analysis applied, under IFRS (16th Edition).

2.3.2 KPIs. The use of KPIs can be applied to measure the performance of the account's payables team in terms of time efficiency and improvements. However, for the companies is quite difficult to select a measure tool for visualise the level of the factors mentioned above. The reasons are the cost associated to obtain and analyse the information, and the great variety of indicators (Kolinski, 2011).

2.3.2.1 Definition. Therefore, the KPIs are a universal tool of measurement with financial and non-financial components. Furthermore, KPIs has the property of benchmark with the industry and competitors of the market. This will give the company a more realistic dimension of their performance and will be and aid to set a realistic goal.

KPIs objective is to reduce a large amount of information in a more detail data that represents the process to achieve a goal. It can be express in percentages, days, proportions or scales. (Katarzyna; Erika; Wojciecn, 2020).

The second international conference on business computing and global informatization defines the KPIs as a key driving factor of the strategic company objective that are evaluated based on a singular index. Carry out this process will make possible the measurement of the factors that are part of the strategic company objective. Nevertheless, in these conferences it was also highlight the limitations of the KPIs. The biggest one is the enormous amount of information that needs to be process in order to have the most accrued index for the industry (Pan; Wei, 2012).

The authors agree in the property of standardization that the KPIs apport as a measurements tool. Further, they mention the relation between KPIs and strategy objectives. These two outcomes are crucial to choose and implement a measurement tool in the organizations.

The first reason is that KPIs include some factors that influence the strategic objectives. This property makes useful and relevant the KPIs result, even more the company will be able to evaluate their strategies by periods with the use of this tool. As a result, the organization and teams will have more information to create new strategies that adapt to the market conditions. Secondly since KPIs have the characteristic of being standard the organization can also analyse their performance on an external context. See if the industry goal changes and measure more accurately their performance.

2.3.2.2 Operational KPIs. The following KPIs will measure the performance of the service and activities of a company. The paper used in part of the literature review is related to a service company.

The first indicator is the average delivery time. This KPI shows on average how long the company takes to deliver an order since the day of the request. To analyse it is necessary over two periods at least to make the comparison.

Formula: $W = \text{waiting times (weeks or days)} / \text{number of requests}$

The image below shows an example of this indicator and the meaning of the result.

Table 3, average order delivery time in 2018

	Date of order placement	Date of order delivery	Waiting time [weeks]
1.	15-01-2018	12-02-2018	4
2.	03-02-2018	17-03-2018	6
3.	19-03-2018	22-04-2018	5
4.	23-03-2018	27-04-2018	5
5.	02-04-2018	28-05-2018	8
6.	07-04-2018	28-04-2018	3
7.	13-05-2018	24-06-2018	6
8.	30-06-2018	28-07-2018	4
9.	03-09-2018	14-10-2018	5
10.	12-11-2018	10-12-2018	4

$$W_{st} = \frac{\text{Waiting time (weeks)}}{\text{Number of orders}} = \frac{(4+6+5+5+8+3+6+4+5+4)}{10} = 5 \quad (3)$$

In 2018, the average waiting time for an order was 5 weeks, which means that the company needed an average of 5 weeks to receive, execute and deliver to a specific customer.

Source: from New Trends in Production Engineering – Volume 3

The result of this KPI will tell the company if there is an improving in this aspect or if a change is needed to achieve their goal. Looking in more detail to the several processes involved in the orders and delivery the company will find the activity that need an adjustment.

Secondly there is the quantitative and qualitative complain indicator. It shows the number of complaints versus the finished products. For developing this KPIs it is necessary to register the complaints by category. As a result, the company will obtain a percentage of the complaints.

Formula: $[\text{Number of finished products} / \text{number of complains}] * 100\% = X\%$

This result will give an overview of the percentage of complains and highlight the process that contribute the more to that result. So, the company will be able to identify easier the source of problem and implement a strategy to solve it.

Finally, the topics in this literature review were used to understand the accounts payable impact in the accountancy, realizing that the management of this department can represent an

opportunity or disadvantage for the company. Based on that, the accrual topic was included to understand the purchase and payment recognition. The importance of defining these two topics, is to analyse the benefits and risks associated to the financial performance of the company. Furthermore, financial ratios and KPIs were included as measurement tools. Firstly, to measure if the department is efficient; secondly to find out how to measure the quality of the service deliver

3. Current situation

The GBS of Benelux has a great variety of responsibilities. The department is facing some challenges in the invoicing process, which is carried out by the accounts payable team.

Therefore, to better understand the current situation of the company several sources of information will be used. Firstly, an explanation of the responsibilities of Benelux GBS and the description of Belgium entities. Secondly, the guideline documents for invoicing process that are used by all the vendors, known as standard operating procedure; finally, the flow chart of the PTP processes for non-PO invoices. The two sources mentioned above will be used to understand the accounts payable services.

Furthermore, the historical data of SAP; the 2022 monthly PTP meeting, and a set of interviews with team members of the AP team will be used as sources of information. The purpose is to have an overview of the current performance of the team

3.1 Benelux local finance

The Netherlands' local entity merged with Belgium and Luxemburg business units, forming the Benelux local finance. The merge of these three countries was based on geographical proximity and to be more efficient as a provider of services. Benelux was possible due to the standardization of the systems because all the business units of Boston Scientific use SAP and Arriba platforms for the purchase and payment activities also known as PTP activities.

Figure 2 shows the overview of the Benelux service. There are 6 major activities accountancy; controlling; statutory accountancy; commercial rebates; taxes; office and fleet management of the Benelux entities.

The services mentioned above are organized by company codes. The Netherlands has three company codes (3000, 3570, and 3050) and Belgium has two company codes (3100 and 7100). The account payable activities are part of the account services.

Nowadays the AP team makes weekly payment proposals. Based on the SAP information the AP team creates an excel file with all the accounts that will be included in the payment period. This document is manually audited to avoid errors. Furthermore, that file also shows the accounts that should be included in that payment but because of a payment block, those are not included.

The payment block is a consequence of using direct debit as a payment method. To explain this process better, if a vendor uses a direct debit all the invoices that get posted will be blocked in the payment proposal because they will be paid by the direct debit that the vendor makes on a monthly base. Another reason to have a payment block is because of errors in the invoice or posting process.

The importance of this kind of information in the payment proposals is that the company can know how many cases, how much money, and for how long pending items are in the system.

Figure 2 Services overview



Source: from Boston Scientific

3.2 Invoicing process

The invoicing has several aspects to be explained. The following topic will be described in this part of the chapter.

- Document type in the PTP process recognized by MyBuy system
- Invoices type in MyBuy system & Approval flow
- Invoice ingestion
- Invoice process

3.2.1 Document type in the PTP. During PTP process a variety of documents are created to make the purchase possible. In the figure 3 below there is the list of the mentioned documents with the area in charge of processing them and a description of each document.

Accounts Payable team oversees three types of documents. Furthermore, these documents are involved with the invoicing and payment operations that is the scope of this thesis project. (MyBuy IP SOP, 2022)

Figure 3, PTP documents

Document Type	Process area	Description
Purchase Request (PR)	Procurement	Internal document used to request procurement of certain products or services
Purchase Order (PO)	Procurement	Formal request document to a supplier to supply certain products or services under given conditions
Receipts (RC)	Receiving	Notification of the receipt of certain goods
Invoice (INV)	Accounts Payable	A request for payment of goods or services provided, normally sent by the supplier
Invoice Reconciliation (IR)	Accounts Payable	An approvable document created from an invoice. Invoice reconciliation allows invoice exception handlers to resolve any discrepancies between the invoice and the associated orders, receipts or contracts. It also allows for validation of accounting and other information before an invoice can be approved for payment
Payment Request (PAY)	Accounts Payable	Document to describe a pending payment. It includes a payment schedule based on the payment terms

Source: from Boston Scientific

Therefore, to understand the current process an explanation about the type of invoices is given in the next section.

3.2.2 Invoice type. The company manage four types of invoices. In the following paragraphs explanation of each is given.

3.2.2.1 Invoices related to a purchase order (PO). The system Mybuy recognise a PO-invoice because of the PO number that must be in the invoice document. The PO number are ten digits that starts with the number seven.

The AP agent who is the person in charge of the creation of this document, must store under the PO number all the information related to GL account, cost center, the OBO person and the internal order.

Nevertheless, the VAT information is not included in the PO; due to that the AP agent has to add that information before submitting the invoice for approval.

3.2.2.2 Invoices related to a contract. The main characteristic of this type of invoices is that it starts with BPO followed by 6 digits. That refence must be in the invoice document.

3.2.2.3 Invoices not related to a Purchase order (No-PO). The No- PO invoices do not have the PO number in the invoice document. Due to that, the AP agent has to extract all the information from the invoice PDF and extra sources of information, such as supplier's portals or supplier's costumer services.

Furthermore, since this type of invoices does not have a PO, the invoice document is not pre- approved and need at least two approvers.

3.2.2.4 Special type of invoices- credit memo's.The AP agent created the document via MyBuy and it will appear as a No-PO document. The credit memo has always to be booked against

a debit invoice. Due to that, the AP agent has to find the invoice document related to the credit memo be to book it.

3.2.3 Non- PO invoicing process. The non-PO invoices as explained require more work to be processed. The reason is that this type of invoices has different kind of exception that normally depends on the vendor. Therefore, there is more place for mistakes in the posting process.

Figure 4 shows the guidelines to process non-PO invoice. In these guidelines, the most difficult items to set in the system are the G/L account and cost centre, the reason is because some bill needs to be spread by employees cost centre and, to make that possible, the AP agents need an excel file with the right cost allocation (MyBuy IP SOP, 2022).

This excel file known as posting temple is prepare by the requestor of the invoice and sent to the AP agents. The AP agents will create a reclass document to allocate the cost in the right cost centre.

Figure 4, Guidelines non-PO

¹⁾ Not in scope: HCP, Big bills, COG invoice

Guidelines for AP agents - for non-PO ¹⁾ invoices

When coding an invoice, the AP agent follows these guidelines:

<p>On Behalf Of</p> <ol style="list-style-type: none"> 1. OBO reference in the Supplier-specific instructions field 2. Requestor name printed on the invoice (either by supplier or by local office) 3. Super user assigned for the entity <p>Vendor identification</p> <ol style="list-style-type: none"> 1. Identification based on vendor name printed on the invoice. Extra validation (optional, and if applicable) is the VAT id 2. Additional instructions in the Supplier-specific instructions field in the AP Cheat sheet 3. Remit-to information matches invoice requirements <p>Commodity Code</p> <ol style="list-style-type: none"> 1. Commodity code reference for the selected supplier in the AP Cheat sheet 2. Commodity code 7090 (Misc. Services) + invoice comment for OBO/Requestor <p>Value added tax (VAT)</p> <ol style="list-style-type: none"> 1. VAT information on the invoice is leading; reference information in DTP/WI 	<p>GL account</p> <ol style="list-style-type: none"> 1. GL account reference for the selected supplier in the AP Cheat sheet 2. Default GL account, based on the selected Commodity Code <p>Cost Center</p> <ol style="list-style-type: none"> 1. Default cost center, based on the selected OBO 2. (for OBO in different entity only) Temporary cost center in Super User Overview <p>Internal Order</p> <ol style="list-style-type: none"> 1. Internal Order information for selected supplier in the AP Cheat sheet 2. Not entered (blank) <p>Invoice Line Items (exception: big bills)</p> <ol style="list-style-type: none"> 1. Line items are created as stated on the invoice 2. If an invoice line item has >1 VAT codes, additional line items are created (matching VAT)
--	---

Information in the AP Cheat sheet **always** takes preference above information on the invoice!

The requestor (OBO) is the knowledgeable and responsible resource to adjust invoice information before posting for payment

Source: from Boston Scientific

Furthermore, each type of invoice has a specific way to be processed and the AP leads, and agents need to follow the stipulated process to avoid errors.

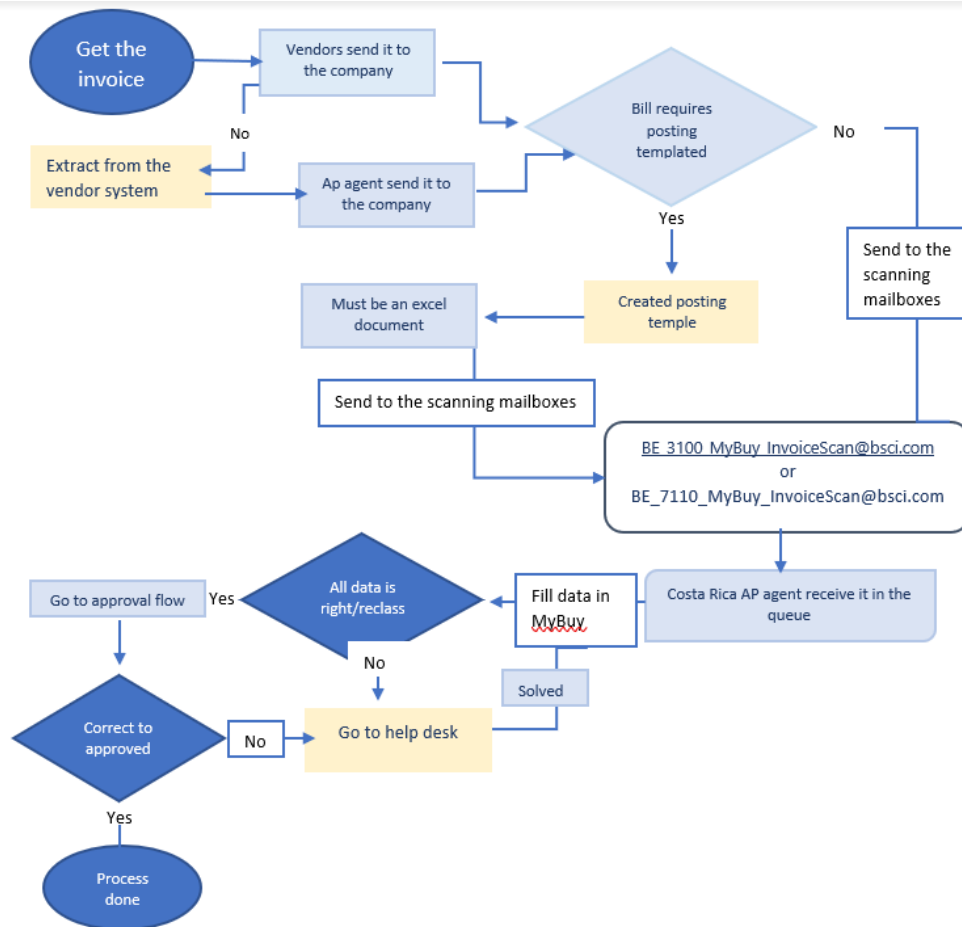
Finally, the last stage under the AP team is the reconciliation of an invoice. Therefore, the AP agents will take the PDFs of the invoices for the correct allocation in the system and perform the reconciliation, which means that the invoice is correct in the system and the only step left is the approval to schedule the payment. (MyBuy IP SOP, 2022).

Nevertheless, sometimes the invoices arrive with validation errors meaning there is something unclear in the invoice information; it can also be an unclear posting process. For these cases, the AP agent needs to solve the issue before doing the reconciliation process. This specific part is the one that creates delays in the invoicing process. Currently, the problem is the time that an invoice stays at the help desk. On average solving an issue with a non-PO invoice takes 9 to 12 business days (MyBuy IP SOP, 2022).

There are some reasons for this to happen. Firstly, errors in the invoice; secondly, there are unclear steps in the posting process; thirdly, the posting template is not clear for the cost allocation; finally, the invoice is missing and the SAP ledger is still with open items.

Figure 5 shows the work flow from when the invoice arrives until the posting in SAP

Figure 5, Non-PO invoice process



Source: Own creation

3.3 Vendors cases

Once all the AP activities related to the invoices have been explained, now it is possible to show some vendor cases base on the SAP record. The following cases had an open balance from old accounts and the solving process is taking the time that could be used in other activities.

3.3.1 Proximus. Proximus is a provider of digital services, communication, and ICT solutions on the Benelux and international markets. Its mission is to expand the possibilities of the digital world for its customers to live better and work smarter (Proximus, 2022). Proximus offers personal and business services. Currently, Boston Scientific has contracts for mobile and fixed-line services for the Benelux group. The Benelux group manages 123 mobile subscriptions and, Guidant Europe, which is the other company in the Proximus group manages 90 mobile subscriptions. The fix lines are in 9 in total for both company groups.

The invoicing system consists of monthly invoices with a single direct debit per month. Boston Scientific receives invoices in a PDF format from this vendor. It can be classified into three main categories.

Firstly, the mobile subscription invoice has on average 150 pages on the PDF. This invoice contains all the numbers associated with the company groups with the respective cost. At the beginning of the invoice, there are the accounting details with the tax amount, the total, and the date of the direct debit that will include that cost.

Secondly, the M-stamen invoices is at the end of the mobile subscription invoice. This invoice has the extra cost that each mobile generates. The singularity is that the value of the M-stamen is not included in the original mobile subscription invoice, due to that it must be processed separately. Finally, the invoice is for the fixed line.

Moreover, for February of 2022, this vendor had an open balance higher than 50.000,00 EUR. The reason is that on SAP, there were 78 open items including invoices and payments. One of the principal consequences is the difficulties for the account management in tracking the

payments. Besides it, the open balance of this vendor will appear in all the weekly payment proposals and that affects the result of the team in terms of efficacy.

3.3.2 AG Insurance. AG Insurance is an insurance provider for private individuals, professionals, self-employed persons, or large companies; the company also offers pension solutions. Currently, the company has operations in the Belgium market (AG Insurance, 2022). Currently, Boston Scientific receives 6 to 7 invoices monthly and 1 invoice each quarter. Due to the kind of service this company provides, the posting process needs more than the PDF. For the posting and processing, a posting temple that allocated the cost per cost center is needed.

The posting temple is a manual task that an AP agent has to do every month. The AP agent extracts the information from the AG Insurance portal and then creates an excel file with the posting temple; this file will be sent with all the PDF invoices to the vendor master team for the posting process.

Nowadays, this vendor has open items from 2020 in SAP, creating a balance of 172.000,00 EUR between invoices and direct debits. The majority of the cases are one or two invoices missing to complete the value of the direct debit.

At the moment, the posting process needs to be clarified to complete the cleaning process. As mentioned above, the consequences of an inefficient posting process will affect the performance of the AP team.

The second source of information for this research process is the monthly call that the AP team uses to analyze the current status of the department and highlight the important cases to

follow. Subjects such as service response, number of open items per company code, PO compliances, and unprocessed items are discussed in this meeting.

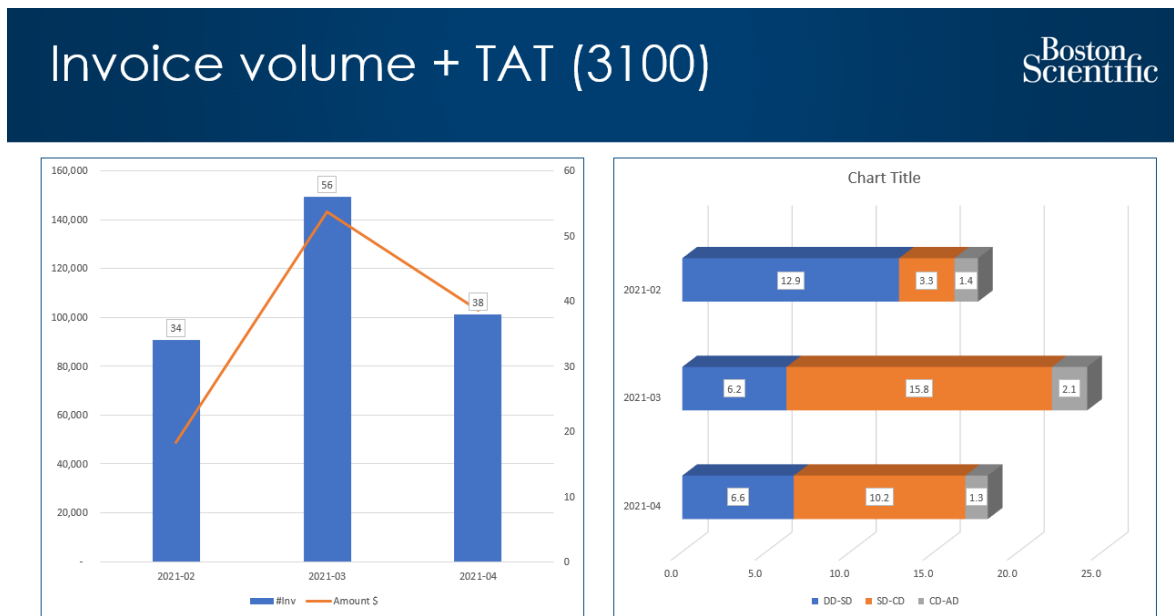
3.4 PTP monthly call

In addition, the team measure per month on average how many days the invoices take to get in the system and approved. In figure 6 and 7, it is possible to see a graph of the volume of invoices and, next to it, the average of days that an invoice takes to process and enter into the system.

The results for the 3100-company code show that the number of invoices and time to process these items has decreased from February. The main reason is the clearing task that was made in March. The clearing consists in fining the invoices and payments of previous years and matching the values to close it in SAP. This action will reduce the open balance and will keep the vendor's account updated for the new incoming invoices.

Currently, for the company code 3100, the average time to scanning and coding an invoice has decreased by 3 days and the approval goes faster as well.

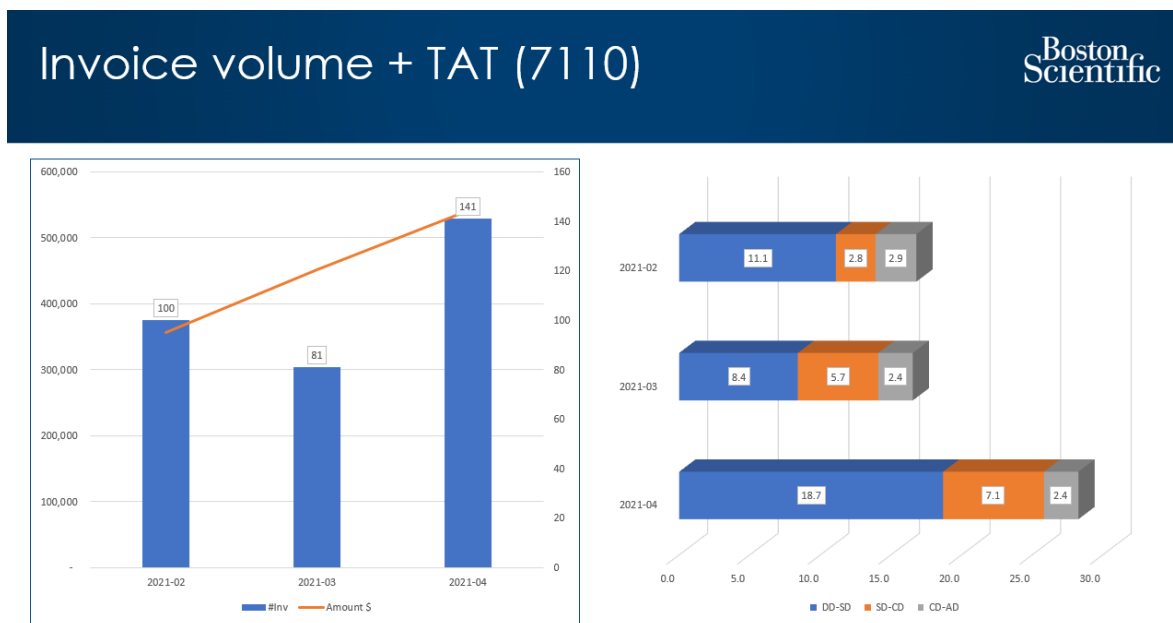
Figure 6, Invoice volume



Source: from Boston Scientific

Nevertheless, for the other company code the volume of invoices has increased and takes longer to process these items. The reason is the rise on the mount of unprocessed items and time spending for solving outliers. Compare to the other company code the number of open items is the double. Therefore, an investigation of the open cases needs to be done to reduce the open balance in SAP.

Figure 7, Invoice volume



Source: from Boston Scientific

3.5 Interviews

Finally, the information from the interviews conducted with the GBS and AP team members. Following is an explanation of the most important findings per question.

Firstly, it was possible to establish an average time of the invoicing-posting process. The answer was that the process should take 1 to 2 days with a normal invoice, nevertheless for invoices that present issues the average time should be 3 to 5 days.

Secondly, one of the problems that most of the interviewees exposed was the lack of ownership in the operations needed in the resolution of causes related to posting issues. There is not a track of all the cases and due to that, the vendors have old open items.

Thirdly, as a common factor, there is no a establish guideline of the exceptions that the non-PO vendors have. Therefore, some process takes more time due to the unclear course of action

In conclusion all the research question related to the current situation can be answered. The table consolidate the answers.

Table 4. answer to the research questions

Question	Answer
1. On average how long take to process a new purchase or bill?	9 to 12 Business days according to the standard operational procedures 2022
2. Why the approval flow of the invoices is different? Why some invoices need 3 or 5 different approval process?	The non-PO invoices always have at least 2 approvers. The number of approver can increase if the bill value is over the 10.000 euros
3. Why in some cases the vendors have more than one numbers in SAP?	The reasons are human errors in the coding process; changes in the name of the vendor or because it is needed to distinguish payment methods

4. Which is the impact in the accountancy when a company make weekly payments?	There is not an impact in the accountancy. It is done because between payment proposals there is not a long waiting time
5. What are the advantages of set a direct debit?	Secure the services needed and the automatization of the payment transactions
6. What are the disadvantages of set a direct debit	The control of the payments is lower at it increase the risk of losing money.
7. What factor concerns you the most and is a priority to be solve in the GBS team?	The time spend per process it should be more efficient. Furthermore, the level of mistakes or unclear operation in the posting process
8. What is your expectation or goal for the team? (1 or 2 max)	Address a better ownership of the activities and reduce the number of problems related to invoices

Source: Current situation, chapter 3

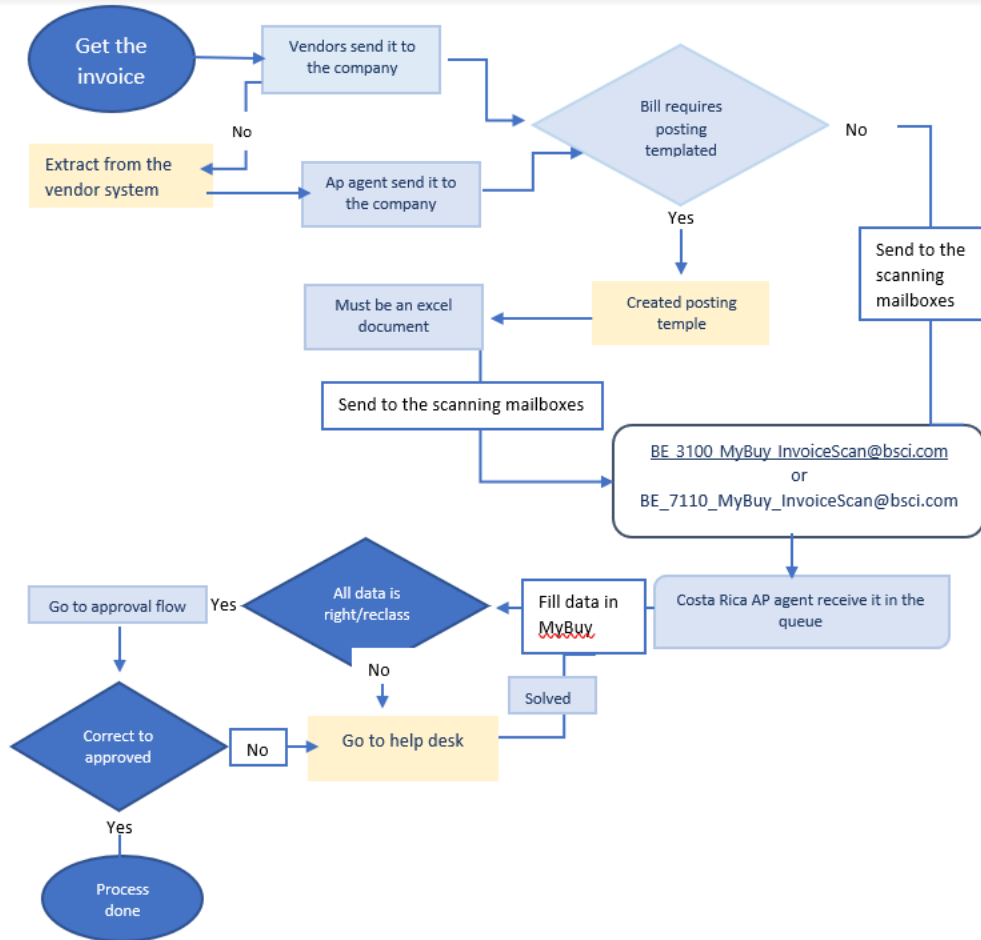
4 Desired situation

The desired situation of the account payable team is to reduce the time-solving cases related to the invoicing and posting process of the non-PO vendors. Furthermore, to make this improvement sustainable an update of the vendor ledger is needed, by clearing the old open items in the SAP system.

4.1. Posting process

The desired situation is that this whole process occurs in 2 to 3 business days at maximum when the invoice does not present a problem. However, some invoices present problems. In this case, the desired time to process them is between 5 to 7 days. Three factors can increase the solving time; those are highlighted in yellow in figure 8.

Figure 8, Non-PO invoice process



Source: PTP invoice creation

The first factor, extracting the invoices from the vendor system, is a manual task that needs to be done monthly to keep the information updated. This task should take 1 to 2 hours once a month. It can extend the time of the process since just one person has access to the vendors' system.

The second factor as explained in chapter 3 is the creation of posting templates which is responsibility of the local office. This file needs to have clear information about the G/L accounts and allocation per cost center. The desired situation is the standardization of this document to avoid delays with the interpretation by the Costa Rica GBS.

Moreover, the desired time a case spends at the help desk is between 1 to 3 business days. An invoice can get stuck at this stage, due to late responses. Finally, the SAP vendors' ledger cleaning is added to the workflow. This step is important to keep the information updated and to have a realistic view of the accounts.

4.2. Clearing of the vendors' ledger

The accounts payable team's goal is to update the vendors' ledger in SAP. The priority cases are the vendors with direct debit that present open items as from 2018. The desired situation is to eliminate the open items until 2021, leaving just the transactions of 2022.

Moreover, the clearing of old open items needs investigation and organization. Investigation to find the missing invoices; and organization to find the direct debit that matches the value invoice for the clearing process.

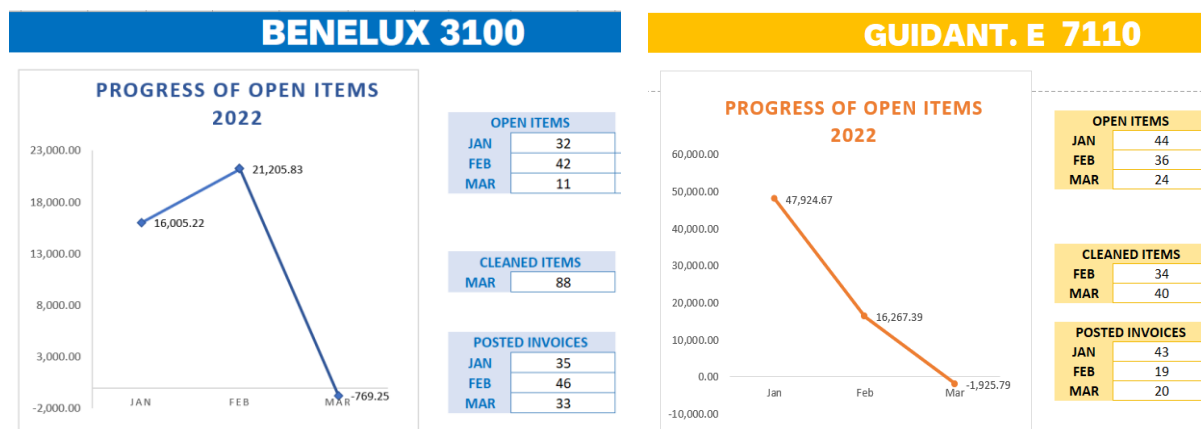
4.2.1 Proximus case. The Proximus case was the first case solved. Following the steps of the clearing vendors ledger, it was possible to close all the open cases and update the SAP information. In the figure 9, it is possible to see the reduction in open items by the volume and monetary quantity.

Benelux entity achieved the resolution of 88 cases of the open item and went from a debit balance of 21, 250.83 euros to a credit balance of -769.25 euros. Therefore, the remaining open balance is related to the 2022 invoices and payments. The Guidant Europe closed 74 open cases in SAP and went from a debit balance of 16,297 euros to a credit balance of almost 2,000 euros.

In addition, since this vendor is in the telecom industry, it was mandatory to update the number of services contracted by the company, to create a sustainable improvement in the billing process. Furthermore, to improve the posting system the vendor set the correct mailboxes for the scanning of the invoices. By doing that the AP agents receives faster the PDF file for the posting process in the Ariba system.

That saves the time that the team spends to investigate and solve the cases, which is on average 5 months. This means that, in the future, the company will not need to spend resources on this type of cases.

Figure 9, Proximus 2022



Source: own creation, based on the SAP

Moreover, after updated the SAP vendor ledger it was possible to recognize the business expenses and non-business expenses charged in the M-statement. Since the company only cover business expenses it was needed to block the billing properties of the accounts that presented non-business expenses in the last 3 months of 2022. These processes will be carried out with the support of HR and the employees. It will generate a savings in the long term.

In conclusion, some activities such as the payment proposal analysis, and the vendors ledger clearing were included in the workflow. These will reduce the time of the posting process to 1 to 2 business days. Furthermore, the creation of the posting guidelines for AG insurance and the segmentation of business and not business expenses for Proximus, represent a future saving in the company.

5 Solution

5.1 Summary

The Benelux GBS has a variety of finances and accountancy services for the Netherlands and the Belgium entities. Accounts payable is one of the teams and activities that GBS oversees. The objective is to deliver an efficient service to the supplier and the requestor of the product.

The accounts payable team manages two types of vendors the PO vendors and the non-PO vendors. The scope of this research is the non-PO vendor, since these are the cases that currently present the highest quantity of open items in the SAP vendor's ledger. One of the reasons is the invoicing and posting issues. The invoicing and posting processes for non-PO vendors are more complicated than the processes a PO vendor needs. To post a non-PO invoice the AP agents need a lot of information and manual work to make an entry of an invoice in the system. Besides that, there are exceptions in the posting process per vendor and type of invoice. The accumulation of unsolved cases related to posting issues creates an open balance in SAP

The second reason is the matching process in SAP to clean the vendors' ledger. This is a task that involves the investigation and organization of the SAP items. The AP agent needs to find the value missing to further find the document and the process needed to post in SAP and then match the debit value with credit values for the cleaning process of the open items

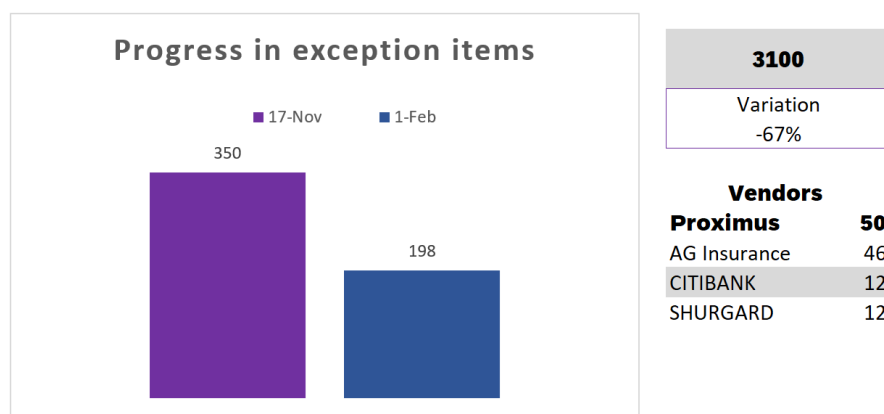
Therefore, the goal is to close and clean all the open items in SAP of this kind of vendor to have an updated system that will show the real balance of the vendor. In addition, to find which operation of the posting process needs improvements in order to reduce the time and issues that currently creates delays.

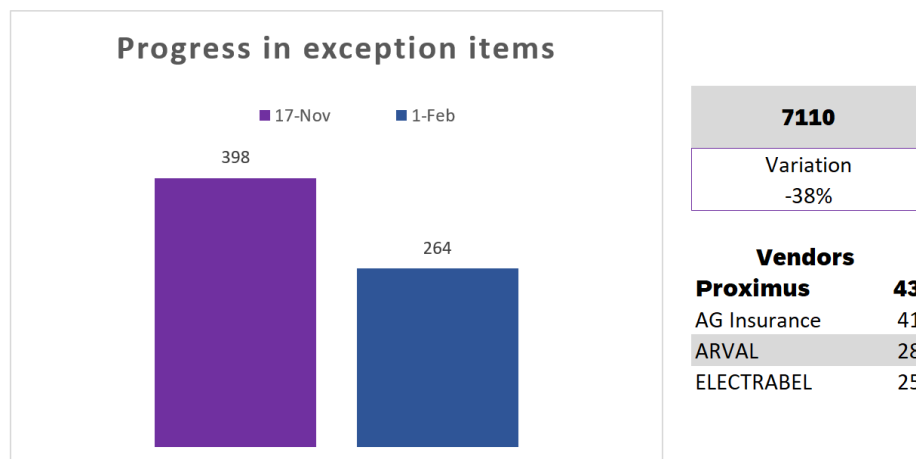
5.2 The solution

The solution is to clear the old open items in SAP for the vendors based on the payment proposal present. By closing the items in SAP, it will be possible to see what is missing and which operation of the posting process take the most time.

The first step is to find which vendors have open items in SAP and organize them from the highest to the lowest to start the investigation of the cases, using the payment proposal for the first week of the month. Below is the overview of the analysis that can be made with the payment proposal information, see figure 10.

Figure 10, Payment proposal 2022



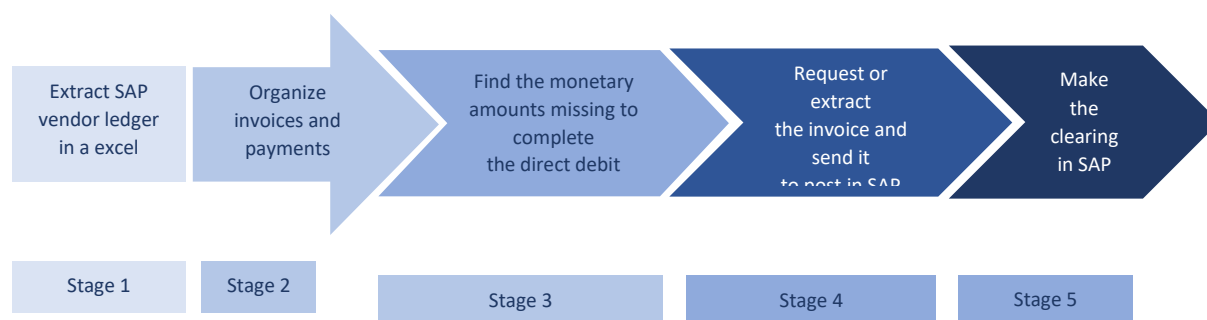


Source: own creation, based on the payment proposal of 2022

The information of this analysis allows to see the total amounts of open items in SAP and filter the vendors that have more items. This is useful measure the cases that need to be investigated and close. Nowadays, the case of Proximus is already solve and has been updated just with the items from 2022. Furthermore, once the cases are detected the clearing of the vendor ledger can start.

5.2.1 Clearing of the vendor's ledger. Figure 11 shows the steps needed to complete the clearing process. To carry out this process, it is important to know the type of vendor; the invoice periodicity; invoice structure, and the items included in the direct debit.

Figure 11, clearing process of the vendors



Source: based on the AP process

In addition, once the vendor ledger is updated, the AP team should do a monthly clearing of all the vendors accounts to keep the system updated and avoid time resources on the investigation of the old items.

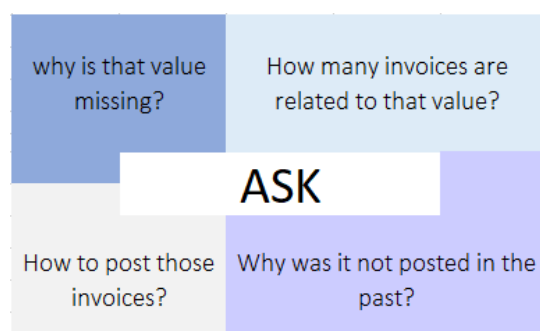
5.2.1.2 Organization- Stage 1 and 2. Firstly, the extraction of the open item in the SAP system of the vendor selected is needed. Once it is on excel, the payments and invoices need to be organized by document date to start doing the matching process of debit and credit values. Normally, it is one payment on direct debit and one or more invoices to match that value, therefore, it is important to understand the invoicing process of the vendor to know how many invoices are related to the direct debit.

Proximus case had three invoices linked to one direct debit; however, AG insurance had six invoices and one direct debit.

5.2.1.3 Investigation- Stage 3. The second step is to find the value of the invoice that is missing. It will be a value related to an invoice since the payments are on direct debit, meaning that there are few cases where a payment is missing. Otherwise, once the value missing is found is possible to start the process of investigation.

The investigation process consists in finding out the answer to these four questions: why is that value missing? how many invoices are related to that value? why was it not posted in the past? and how to post the invoices?

Figure 12, Investigation- Stage 3



Source: Based on the investigation process for invoices

The first question is, why is that value missing? These questions help to identify the type of value that is missing, sees if that is a credit value or debit value. Based on this, it looks at the previous vendor transactions to see if that is a common value and find the periodicity. Continuing with the investigation, search for the number of invoices that complete that value; the invoices should be in the same month, and that will answer the second question.

The third question, what was not posted in the past? It is necessary to find out the invoicing problem. The most common reasons are that the invoice didn't arrive at the correct mailbox, also

that the invoice needs a posting temple; or that there is an issue with the information of the invoice. To have a better understanding of the situation, it is possible to search the invoice reference in Ariba, where it is possible to see the history of that invoice and when it was denied. It will be helpful to find if the case may be related to a double posting of the invoice; in which case it is necessary to request a reversal of that posting to clean the item from the vendor's account.

5.2.1.4 Investigation- Stage 4. Finally, when the invoices are found and it matches the value, the next question is how to post it? This is a very important question to find improvements and to reduce the posting time. Therefore, understanding the posting process is crucial to figure out the issues with the invoices of that vendor.

Most of the non-PO vendor uses posting temple to allocate correctly the cost per employee or cost centres. This document is needed in the posting process to post the invoice correctly. That file is created in the Benelux GBS and sent it to Costa Rica GBS, which oversees the posting process. The information and instructions in that document need to be clear enough so the AP agent creates the entry of the invoice in the system and subsequently reclassifies per cost center. As it was explained before, each vendor has exceptions and that is why understanding the invoicing structure and posting process is important to find a sustainable solution.

Subsequently, to improve this process which has a great number of exceptions and is nowadays one of the most time-consuming operations, a set of guidelines was created. The guidelines firstly describe the type of invoices and the exceptions that the vendor has in the posting process. Secondly, the guidelines segment the type of invoices that need a posting temple. Finally, there is an explanation of how to use the posting temple. It mentions the G/L account and cost center that the AP agent must use for the creation of the invoice in the system. Annex number 1 has an overview of this document.

5.2.1.5 matching debit with credits- Stage 5. Finally, the last step, once everything that was missing is posted in SAP; the AP agent can perform the clearing of that account. For that is necessary to enter the transaction to clear the vendor in SAP. There the AP agent needs to match the credit values with the debit values until the balance in the transaction is zero; when all the open items were correctly matched the result is saved and with that, the SAP ledger of that vendor will be updated. There must be a scheduled date once per month to realize this task.

5.3 SAP consolidation

The consolidation process will occur when the SAP vendor ledger is updated. In this phase, the extra vendor number in SAP will be blocked. Blocking the extra vendor numbers is necessary to avoid cases of double-posting invoices, also because it is easier to perform the clearing process. For blocking the SAP vendor number, the AP agent needs to contact the European vendor master team for creating a request. If the request is approved the number will be blocked in 2 business days from the request

6. Recommendation and policy

6.1 Implementation plan

The solution described in the previous chapter has three main phases. The first one is the identification phase, the second is the updated vendors' ledger, and finally the SAP consolidation. Figure 13 shows the implementation plan and who is the person in charge of each task. Furthermore, the short term is the end of the second quarters of 2022; the mid-term the third quarter and the long term is the last quarter of 2022.

Figure 13, Implementation plan 2022-Identification

Identification	
Task	Payment proposal analysis
	Implementor
Short term	Mariana Araque GBS intern
Mid-term & Long term	Jhon O'Neli AP lead for Benelux GBS accounts
Document/ tools	Weekly payment proposal
Periodicity	2 times per month

Source: own creation

The identification it is a task that the AP lea needs to do in the long term. There it is needed to analyse all the exceptions in the payment proposal and find reason of why that item is classified as an exception.

Figure 14, Implementation plan 2022-Update vendor ledger

Update vendor ledger					
S T A G E 1 & 2	Task	Extract SAP Information Organization SAP information	S T A G E 4	Task	Extraction of the documents Creation posting guideline
		Implementor			Implementor
	Short term	Mariana Araque GBS intern		Short term	Mariana Araque GBS intern
	Mid-term & Long term	Jhon O'Neli AP lead for Benelux GBS accounts		Mid-term & Long term	Jhon O'Neli AP lead for Benelux GBS accounts
	Document/ tools	SAP open item and Excel		Document/ tools	Vendor system
	Perdiocicity	Per-case		Perdiocicity	Per-case
S T A G E 3	Task	Investigation	S T A G E 5	Task	Send PDFs invoices Clearing of the open items
		Implementor			Implementor
	Short term	Mariana Araque GBS intern		Mid-term & Long term	Jhon O'Neli AP lead for Benelux GBS accounts
	Mid-term & Long term	Jhon O'Neli AP lead for Benelux GBS accounts		Task	Posting the invoices
	Document/ tools	Ariba and Vendor system		Mid-term & Long term	Angie Madrigal Ignacio Paragua
	Perdiocicity	Per-case		Document/ tools	The scanning mailbox

Source: own creation based on the finding in the investigation

The figure 14 explains the stages to carry out the updated in the vendors ledger in the SAP system. Besides that it also explain the person in charge of the process in the short terms, mid term and finally the long term. All the procedures are explain in the chapter 5.

Figure 15, Implementation plan 2022- SAP consolidation

SAP consolidation

Task	Block extra vendor numbers
	Implementor
Short term	Mariana Araque GBS intern
Mid-term & Long term	Jhon O'Neli AP lead for Benelux GBS accounts
Teams	Vendor Master team

Task	Updated psoting templed
	Implementor
Short term	Mariana Araque GBS intern
Mid-term & Long term	Jhon O'Neli AP lead for Benelux GBS accounts
Teams	Vendor Master team

Source: own creation based on the finding in the investigation

The final stage is the consolidation of the accounts. Here the AP lead needs to block the extra SAP numbers that the vendors has and updated the posting key value.

Source: process and stages need to updated SAP

Currently, there are two projects active and they are expected to be done in the mid-term: the Proximus and AG insurance projects. For the company code 3100, these vendors contribute 39% of the exceptions in the payment proposal of February 2022 and for the 7110-company code, it represents 42% for the same period. Achieving these projects will complete 38% of the company

goal; the remaining percentage are cases of PO vendors with less complex posting processes. Moreover, it is necessary to carry out the three phases explained in this document to achieve the company goal in the long term.

6.2 Estimated the cost/benefit

6.2.1 The cost. The implementation plan has an investment cost associated to the time a person will use to solve the cases of Proximus and AG insurance. To make these calculations it was used the internship wage for 2022. Moreover, some assumptions related to the time spent in the pre-process are needed. The assumptions were made based on the answers of the interviews or the time spent in the meetings.

The total cost of implementing the solution is 1,385 euros. This cost is projected 6 months which is the internship period and also the expected time to solve the Proximus and AG insurance cases.

The tables bellow shows the calculation of the cost per process.

Table 5, investment.

Process:		Proximus clearing	
Asumtion	Type	Amount	
Internship allowance	EUR/ hour	2,6	
Time spend	Hours	0,5	
Clean items for Benelux	SAP items	88	
Total investment	Eur	€	450
Clean items for Guidant Europe	SAP items	74	
Total investment	Eur	€	378
total saving	Eur	€	828

Process:		AG clearing	
Asumtion	Type	Amount	
Internship allowance	EUR/ hour	2,6	
Time spend	Hours	0,67	
Clean items for Benelux	SAP items	76	
Total investment	Eur	€	291
Clean items for Guidant Europe	SAP items	69	
Total investment	Eur	€	265
total saving	Eur	€	556

Source: Own creation. Data from the SAP balance

For this calculation it was used the internship allowance per hour divided by the average time spent solving a case; then that result times the number of cases that were solved. Therefore, the company invest a total of 1,385 euros to solve the cases of Proximus and AG insurance. It means that during the six month period the company has invested 231 euros monthly.

6.2.2 The Benefits. The benefits are calculated based on the time saved using the guidelines and clearing SAP items. For the Proximus case, there is also a saving generated by the reduction of the M-statement monthly cost. To make the calculations the standard wage per hour of the EMEA department is considered. It is 51.60 euros per hour. Moreover, some assumptions related to the time spent on the pre-process are needed. The assumptions were made based on the answers of the interviews or the time spent in the meetings.

the solution generates a projected saving of 4.5876.5.

Table 6, M-stamens

SAVINGS		
Process:	Proximus M-stament	
Assumptions	Type	Amount
Block payment services	Mobile lines	4
Expenses	EUR	286.72
Reduction in mobile invoices	EUR	1146.88

Source: Own creation. Data from the Proximus.

The calculations in the table 6 show the saving created in the Proximus invoices. It was possible by blocking the payment services of 4 mobile lines, therefore, the company will safe 1,146.88 on the next 6 months.

Table 7, AG insurance

Process:		insurance posting process	
Assumptions	Type	Amount	
EMEA Rate for saving	EUR/ hour	51.6	
Reduction on the posting Process	Hours per invoice	0.08	
Saving per invoice	EUR/ hour	4.3	
Monthly	Invoices	7	
Saving per month	EUR/ hour	30.1	
Saving in days	days	3.7625	

Source: Own creation. Data from the SAP balance

The calculations in the table 7 show the savings related to the reduction in time in the AG insurance posting process. The reduction of 0.08 hours in the posting process create a savings of 30.1 per month.

Table 8, payment proposal

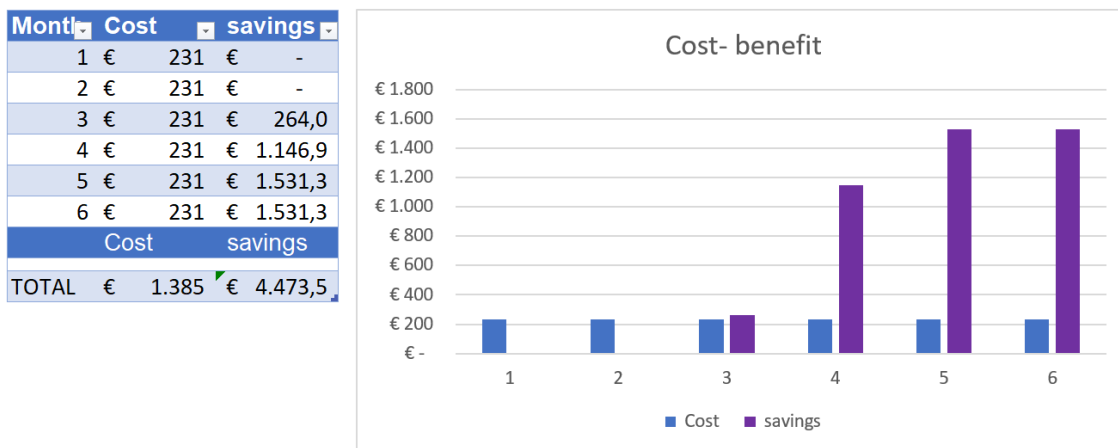
Process:		Payment proosal	
Assumptions	Type	Amount	
EMEA Rate for saving	EUR/ hour	51.6	
Reduction on the PP analysis	Hours per item	0.02	
Saving per PP	EUR/ hour	0.86	
Payment Proposal	Items	307	
Saving per month	EUR/ hour	264.02	
Saving in days	days	33.0025	

Source: Own creation. Data from the SAP balance

The table 8 shows the reduction of time in the analysis of the payment proposal, the reduction in time is possible because 307 exceptions are no longer in the document to audit.

Finally, the results obtained show that the investment cost is lower than the savings created by the implementation of the recommendations. Furthermore, the investment will be recovered in the fourth month according to the figure 14 that presents the comparison of the cost and savings.

Figure 14, Cost benefit analysis



Source: cost-benefit result

6.3 Future research

The future research for GBS should be related to how to reduce the number of digital documents created. The volume of PDFs and Office documents (Excel, Word, and Powerpoint) create a higher cost in cloud services and software space. Furthermore, the business reality is highly digital, making IT services indispensable for the activities. Therefore, the control of the IT cost should be in considered as future research.

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