

## **BUSINESS ADVICE**

## Group 4

Anna Chernova, Izabella Bogdanova, Yazan Fattal, Gijs Wijngaards, Sjoerd Heijmann

## TABLE OF CONTENTS

1.INTRODUCTION	<u>3</u>
1.1 SUMMARY	3
1.2 Intro about the business advice	4
1.3 PROBLEM DESCRIPTION	4
2.BUSINESS ANALYSIS	<u>5</u>
2.1 Introduction	5
2.2 STAKEHOLDER ANALYSIS	5
2.3 SWOT ANALYSIS	7
2.4 ROOT CAUSE ANALYSIS	9
2.5 GAP ANALYSIS	10
2.6 ISHIKAWA DIAGRAM	13
3.RESEARCH QUESTIONS	14
3.1 Main Research Question	14
3.2 SUB-QUESTIONS	
4.RESULTS	15
5.SOLUTION	21
<u>5.50 E                                  </u>	
5.1 OPTIONS CONSIDER	21
5.3 FINAL SOLUTION	
5.3 BENEFITS	
5.4 TIMESCALE	
5.5 COSTS	
5. 6 RISKS	
6.GLOSSARY	26
7.CITATION	27
TION TARABOUT	
8.REFERENCES	20
O.RLI ERLINCES	28
10 ADDENDIY	21

## 1.INTRODUCTION

#### 1.1 SUMMARY

This business advice provides information and problem description about the case of "Sicreuq BV – Carleon Europe BV".

We found some issues:

- 1. Employees have no idea how to make use of the Exact program.
- 2. Lose unnecessary money for suppliers because of payment delay.
- 3. The process of invoicing is delayed on timing due to being on the paper.
- 4. The quantity of overdue invoicing is increasing.

Afterwards, we made business analysis in which we include stakeholder analysis, swot analysis, root cause analysis, gap analysis and ishikawa diagram. Therefore, we came up with research questions:

Main: Is the financial situation of Carleon satisfactory?

### **Sub-questions:**

1. What leads to customers paying late?

We found that this could be due to the shame of having to pay, or sudden financial issues a customer might have.

2. What can we do to decrease the time between customers getting an invoice and the customer paying the invoice?

To solve a customer invoice process, we can provide some ideas to improve the situation about the customer paying the invoice in time. For instance: set non-negotiable due dates, customer invoice on time, offer payment by instalments, penalties for overdue payments and set email reminders.

*3. How is the unpaid money divided among our customers?* 

We provided a graph Figure 5. Graph showing the total amount of money owed per age. From the following aging analysis, the total owed amount of  $\[ \le 526.480,10 \]$  is divided between the ages as follows; 0-30:  $\[ \le 162.507,16 \]$ , 31-60:  $\[ - \le 60.392,49 \]$ , 61-90:  $\[ \le 26.153,69 \]$  and  $\[ > 90 \]$ :  $\[ \le 277.426,75 \]$ . Then we also showed Figure 6. Graph showing the division of the owed money. It demonstrates the amount of money that the company hasn't received from customers within 2015 and 2016. And Figure 7. Graph showing the division of the amount of money that the company has not received from customers. It shows the total amount of money in millions during 2016. Indicating that the quantity of unpaid invoices increases, as seen in Figure 8. Graph showing the number of unpaid invoices based on the 2016 looking back at the past few months of 2016, it's clear that the number of outstanding invoices reached an all-time high.

4. What is needed to make sure the streamlined process is followed in the future?

We provided some techniques which company can implement in their case, such as workshops, employee morale and to consider is the possibility of an internal period of checks.

5. What is the current days sales outstanding?

We showed the Figure 9. Graph showing the days sales outstanding based on the date which represents the number of days that Carleon takes to get paid after invoicing. In other words, the faster a company collects payment from its clients, the faster it can pay its suppliers.

Then based on the results from the research questions the following recommendation is made to automate the process. As found in the GAP-analysis, the automation of the process would remove a lot of the nettle points currently encountered. Second, create the dashboard. The dashboard will enable for additional information and analysis of the company's financial situation, as well as a better understanding of the influence of their clients' account payable.

#### 1.2 INTRO ABOUT THE BUSINESS ADVICE

We have been assigned to work on the **Carleon Europe BV** case as **Sicreuq BV** personnel. Our prospective role is to offer substantiated advice on the financial process' future structure to assist and optimize Carleon's company operations and administrations within the company. This is a fundamental approach that we, as Sicreuq employees, will have to understand and implement in this business advice and subsequently later work.

### 1.3 PROBLEM DESCRIPTION

The issues from the presented **"Sicreuq BV - Carleon Europe BV"** scenario is provided during talks with the CEO and within the Exact software application, that delivers all the necessary data for investigation and problem recognition. As a result, the following issues arise:

#### **Issues:**

- 1. Employees have no idea how to make use of the Exact program.
- 2. Lose unnecessary money for suppliers because of payment delay.
- 3. The process of invoicing is delayed on timing due to being on the paper.
- 4. The quantity of overdue invoicing is increasing.

## **2.BUSINESS ANALYSIS**

#### 2.1 INTRODUCTION

Before dividing into workable solutions, we must first analyse the conceivable gaps and processes within Carleon's financial aspect. We will not only rely on the financial approach, but we will also work through an issue and establish an investigation for our stakeholders in this segment of our business advice to determine and approach the knowledge toward a solution for Carleon later.

### 2.2 STAKEHOLDER ANALYSIS

Every person who has an impact on, or is impacted by, the property and project-related schemes in Carleon is referred to as a stakeholder. This indicates that not only 'professionals' involved in property acquisition, development, and management, but also homeowners, can have an impact on the development of real estate equity. (Who are the stakeholders in the property industry?)

#### 1. Who are the relevant stakeholders?



Figure 1. Stakeholder analysis

For stakeholder analysis about Carleon we divide it by internal and external stakeholders.

Internal stakeholders:

- **Employees** have considerable financials and time investments within the company, and play a defining role in the strategy, tactics, and operations the company incorporates. The Carleon, for instance, has a property security department, a technical unit, and other departments that keep up with their real estate scheme.
- Managers play a significant function in determining the approach of the company, and a big voice in operational decisions. They also are responsible for an act as a factor of contact between shareholders, the board of directors, and the company itself. In Carleon their managers provide a structure for the property aspects such as property managers, economic management, commercial and others that are involved within the company.
- **Director** has a big responsibility to act in the best interests of the company and to decide when, and what stakeholders should be considered. (Boundless, *Boundless management*)

#### External stakeholders:

- **Suppliers** are interdependent, in which the achievement of one will affect the success of another. As a result, suppliers are strongly associated with companies as key external stakeholders.
- **Government** as a stakeholder play a vital role, relying mostly on taxes and related issues of legality and proper payment methods in the company's operations.
- Landowners are likely to be key performers in housing development. They might sell their land, at the value that developers think is affordable given all the costs and risks involved.
- **Property managers** refer to the overseeing and management of diverse commercial and residential properties. This consists of looking after all the day operations for a property consisting of collecting rent, managing maintenance, tenant complaints and more. (*Property management: Definition and responsibilities*)
- Creditors lend money to businesses, and they could have a secured interest in the company's worth. Creditors receive a commission back from the sale of services or products at the business. (Mining, *The 10 types of stakeholders that you meet in business* 2021)
- **Residents** are the people who purchase items relating to real estate. Customers that work with Carelon can be flexible and approach the correct quality at the right pricing for their overall housing demands.

2. What are the interests of each stakeholder? / What is the power of each stakeholder?

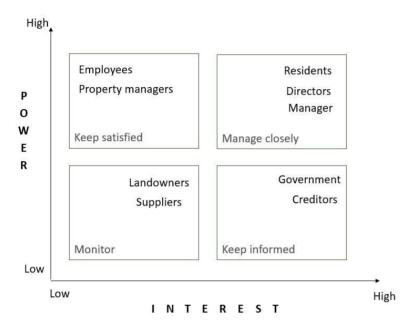


Figure 2. Stakeholder quadrant

**High power - High interest:** Residents, directors, managers are decision makers and have the biggest impact on the business success and hence everyone must proactively manage their expectations.

**High power - Low Interest:** Employees and property managers needed to be kept in a loop and kept satisfied even though they don't seem to be concerned about the business side.

**Low power – High interest:** Keep government and creditors informed and talk to them to ensure that no key issues are arising.

**Low power - low interest:** Monitor landowners and suppliers, but do not bore them with excessive communication.

## 2.3 SWOT ANALYSIS

A SWOT analysis is a framework for figuring out strengths, weaknesses, opportunities and threats. It is implemented to any business and industry, from non-profit charities through to massive company entities. (*Introduction to SWOT analysis, n.d.*)

This method allows us to evaluate Carleon's strengths and weaknesses based on fact-based analysis, fresh perspectives, and innovative ideas. In addition, view the potential of the real estate business, their competition, and risks.

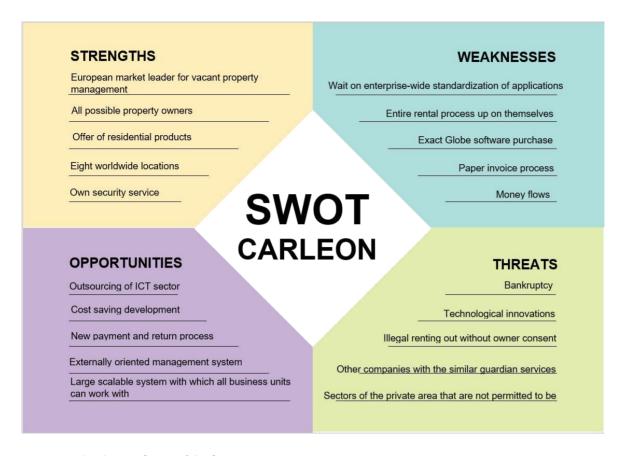


Figure 3. SWOT analysis of Carleon.

Carelon earned a worthwhile reputation as a corporation with high customer participation, not to mention its variety of locations and security that prevented vandalism, squatting, theft, and other illegal acts. As for their residential products, it is well known that as a firm, they specialize in "*Microliving Solution*," which focuses on developing small studios, apartments for young people to live in.

As for the flaws, Carleon's financial systems, which rely on a paper-based technique for generating bills and obtaining quotes from suppliers, are particularly problematic. Due to being autonomous in administration, development, consulting, security, and technological parts of the organization, as well as having a lot of obligations to take on in one, a lot of information is lacking or in chaotic patterns. Due to the launch of a new software called *Exact Global*, which is not yet fully utilized or applied by the company's personnel, which takes too long to learn. Another issue that might be considered is the money lost as a result of their financial procedure and consumers' payment methods.

This company contributes to the cost-cutting, ICT sector, management process, and other opportunities. Carleon will be able to take their approach to real estate to a new level, with the ability to be more organized and up to date with payments from their customers, which information will be included in new information technology development.

Finally, threats are a crucial element of this analysis, particularly for Carleon, given their awareness of their competitors and potential difficulties as a corporation. As a result, based on their real estate history, they will rely on illegal renting-outs, other organizations with similar

goals and grounds, and private rental sectors, all of which can have a direct impact on the real estate industry. Then, as for today's businesses, technological innovations and bankruptcy are the two critical factors to be aware of. In terms of technology, Carleon needs to be more involved and adopt more is required to be deemed a market leader, and without proper financial processes and resolution of their problems, they will face bankruptcy.

### 2.4 ROOT CAUSE ANALYSIS

This section focuses on a root cause that has been causing problems at Carleon; it is the first step in delving further into the company's problem and providing viable solutions afterwards.

Table 1. Root Cause Analysis

Symptom	Effect	Failure	Cause	Root cause
Monetary loss	Loose unnecessary money for suppliers	Do not pay for suppliers on time	Customer payment is late	Process of invoicing is delayed and not optimized due to customer paper invoices
Not acquainted technological usage.	Workload is too high	Economic management is not optimized	Financial data is not centred	Employees are not familiar to use Exact

Based on the case description, regarding the financial part, one of the current problems of the company is financial loss. The obvious reason is that they have many penalties for suppliers of the missing payment on time. However, the primary source of the problem is the client, whose payments are frequently late. But if we look at the entire process of payment, the root cause belongs to the company as their invoice system is delayed due to the customer paper invoices. Outdated and non-optimal invoicing processes can be considered as the root cause leading to economic loss.

Another problem that the company is facing is the labour shortage in the finance department due to the high workload of current employees. Their monetary management system is not optimized, which causes them a lot of struggles and waste of time during work. A visible problem in this process is that the data is not centralized between departments, so every time the customer manager processes customer invoices, they must call the Financial Department to get related data. The root cause they have is that employees do not have any experiences in using Exact application.

## 2.5 GAP ANALYSIS

When analysing the given business case, it is easier to understand the underlying processes by visualising them. In appendix item 1 and 2, (Monthly payment IST, Monthly payment SOLL) the monthly payment process is showcased using BPMN. Using these visualisations, we have pinpointed risk areas in the IST situation. We then used these risk points to create a GAP-analysis (see figure 4).

Before we continue with the GAP analysis, first we want to grant a bit more insight in the modelled process.,98.9% of Carleon's customers pay via direct debit. The direct debit process is shown in the modelled process down below. If this debit goes through without an issue, the process works flawlessly. However, when there is an issue with this direct debit, or for the customers who want an invoice is where we encountered bottlenecks. For these customers a paper invoice is created by hand. Following that, the invoice is sent out by post. The customer then has a payment term of 30 days. After these 30 days a different department must manually check in the system if the company has received the due payment. If the payment was successfully received the process ends. If the payment was not received a reminder is made by hand and sent out to the customer.

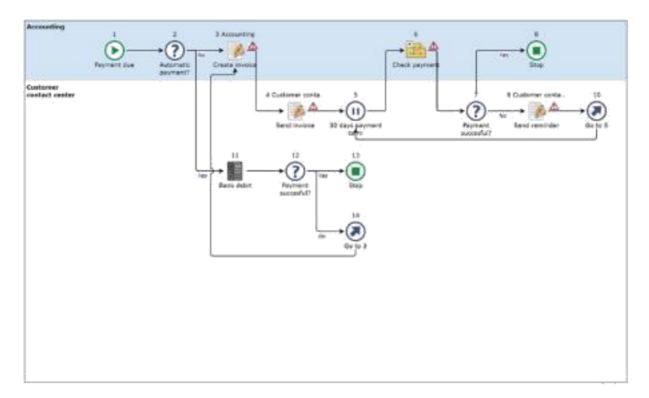


Figure 4. Gap analysis BPMN

Table 2. Gap Analysis

Items	Current situation (IST)	Desired situation (SOLL)	Gap	Remedial action
items	Abbreviations: KCC = Customer	Contact Center, dept. = depart	ment.	
Invoice creation	The accounting dept. creates the invoice by hand for each customer. Resulting in a labour and time intensive job.	The invoice is created once and added to the automated invoicing program to automatically reflect new purchases.	Creating invoices is currently done by hand. This job costs a lot of time and thus money.	By adding an automated system, the invoices need to be created once from a template and then added into the payment system.
Sending invoices	Invoices are currently being made by hand as was stated previously. They are then also manually sent out to clients.	The invoice is automatically sent out to the correct client via an automated system. This prevents human error and eliminates waste.	Sending out the invoices by hand is a step that costs a lot of time. An employee needs to manually sort out where the invoices need to go.	By automating the invoicing system using a bookkeeping tool or an addon for the ERP system, a lot of employee time will be freed up. This also prevents human errors.
Checking payments	after the payment term, the accounting dept. has to manually check the system if the client has paid. The KCC can't check this themselves.	The system automatically checks open invoices for payments. If the invoice has been paid, the status changes.	A lot of communication goes on between departments for this step. This can be a bottleneck for the process. Because the KCC can't check the system themselves this leads to time waste.	By automating the system and opening it up to the KCC, communicational waste between departments will be resolved. The system pings the correct dept. with updates about payments.
Sending reminders	Reminders are manually sent by the KCC after they have received the payment information from the accounting dept.	Reminders are automatically sent by the system when it notices the payment term has passed without receiving payment.	Similar to the previous step, the communication between the two departments leads to waste. Afterwards, the KCC manually sends out reminders to clients with open invoices. This is a cost intensive process	up employee time.

The biggest form of waste analysed in the GAP is in the form of time. The process involves a lot of manual steps which can be fastened and executed with less errors when making use of an automated system. Currently, the KCC can't access payment information without provided steps in their paper system.

## 2.6 ISHIKAWA DIAGRAM

A fishbone diagram is a cause-and-impact discovery tool that allows figure out the reason(s) for defects, variations, or failures inside company's process. In different words, it helps break down, in successive layers, root causes that located within the company. (Fishbone diagram explained: Reliable Plant, 2020)

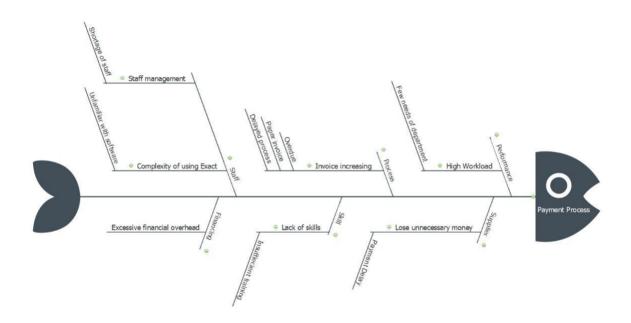


Figure 5. Ishikawa diagram

There are six probable causes for the payment procedure, as shown in this diagram:

## Staff

According to research, staff play a role in this difficulty, and the link that we have discovered is staff management, which generates a staff shortage, and the second cause is the complexity of utilizing Exact software, which the employees appear to be uncomfortable with.

## **Process**

The number of customer invoices is increasing, which can lead to resulting in missed invoice payments. The second factor was the employment of a paper invoicing system.

## **Performance**

Employee performance can have a significant impact on the payment process; the issue that has been identified is heavy workload, which impacts employee performance at work.

## **Finance**

The financial overhead is excessive which leads to an overdue payment process.

#### Skill

Employees' abilities are influenced by the company's performance as well as payment problems. As a result of the investigation, it was determined that there is a major lack of skills in the performance of employees, which has an impact on the payment process.

## Supplier

The final cause that could lead to payment delay is losing unnecessary money which can be found in the supplier department.

## 3.RESEARCH QUESTIONS

## 3.1 MAIN RESEARCH QUESTION

We developed the main research question for this project, which we will address later as part of the research on Carleon's financial process.

Is the financial situation of Carleon satisfactory?

To be able to respond to our main question, we must first construct a solution to our subquestions, which serves as a skeleton for our main question, and decide on an answer to it.

## 3.2 SUB-QUESTIONS

Made sub-questions:

- 1. What leads to customers paying late?
- 2. What can we do to decrease the time between customers getting an invoice and the customer paying the invoice?
- 3. How is the unpaid money divided among our customers?
- 4. What is needed to make sure the streamlined process is followed in the future?
- 5. What is the current days sales outstanding?

We can provide a greater understanding of the financial process and a stronger solution to resolve previously stated difficulties based on the results that we will obtain by answering these questions.

## 4.RESULTS

## - What leads to customers paying late?

First, the data shows that customers often miss a second payment, once the first payment is missed. This could be due to the shame of having to pay, or sudden financial issues a customer might have.

Using the 'Payment method' query found in the appendix, we see that only 336 of the total 28.887 payments were not made with an automatic payment, "incasso" in Dutch. From this we can conclude that forgetting to pay should not be an issue. The missed payments are probably payments that couldn't be deducted due to too low bank balances, or payments that customers retracted after the money was deducted.

According to Lea at al. (1993) there are certain factors that indicate customers being prone to be in debt. The biggest contributing factors are economic factors. Adverse family economic conditions were found to usually be the cause. Some social and psychological factors are also related to debt, like religious beliefs and attitude towards having debt.

- What can we do to decrease the time between customers getting an invoice and the customer paying the invoice?

In our case a customer invoice is a document issued by a company to a customer, requesting for payment of goods. It is offered to the customer before or after the transaction has taken place. In addition, invoice is a legal document that closes the settlement among the company and buyer. It cannot be cancelled or removed from sales records or an accounting outlook.

To solve a customer invoice process, we can provide some ideas to improve the situation about the customer paying the invoice in time.

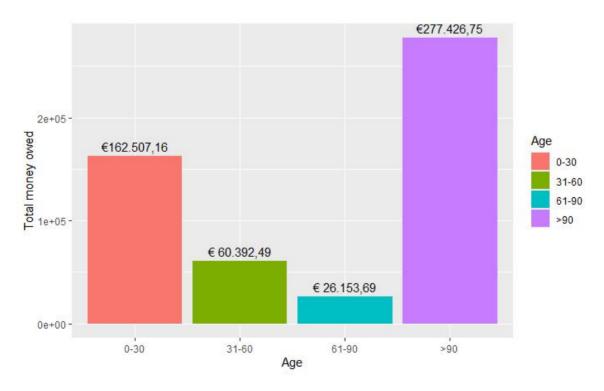
- Set non-negotiable due dates before signing the contract with the client, confirm with both sides on due dates for paying the invoice. (What is an invoice? Raising them & getting paid 2021)
- Customer Invoice on time it is understood that a company needs to send customer invoices on time if they want their money on time. Keep the template handy so employees can substitute information quickly and easily. (What is an invoice? Raising them & getting paid 2021)

- Offer payment by instalments dividing payments over a time not only enhances your cash flow, however it additionally makes that big lump sum a little less intimidating to your client. (10 ways agencies are getting clients to pay their bills on time 2020)
- *Penalties for overdue payments* including late penalties can help in case your customer missed their invoice due date. That way, they'll have an incentive to make the payment on time. If they do not, you'll be compensated for it. (*10 ways agencies are getting clients to pay their bills on time* 2020)
- Set email reminders when the payment deadline comes, it is better to be safe and send a small reminder to customers. (10 ways agencies are getting clients to pay their bills on time 2020)

All these suggestions are based on the efficiency and consumption of the time it takes consumers to pay their invoices and for the company to process them. Customers, suppliers, and Carleon itself are suffering from inconsistent waiting processes because of an earlier stated methodology related to a gap analysis in this advice. As a result, our primary proposal will be to base this procedure on easily accessible current software.

## - How is the unpaid money divided among our customers?

To start the analysis, we first look at aging, which is the process of dividing the owed money into categories based on the range of the age of the due payment. At Carleon the ages 1-30 days, 31-60 days, 61-90 days and over 90 days are used. In Exact we look at 'Finance' → 'Accounts Receivable' → 'Balance list' while using 31-12-2016 as reference date. From the following aging analysis, the total owed amount of €526.480,10 is divided between the ages as follows; 0-30: €162.507,16, 31-60: -€60.392,49, 61-90: €26.153,69 and >90: €277.426,75.



*Figure 6.* Graph showing the total amount of money owed per age.

The fact that more than 50% of the owed money is already stuck for more than 90 days is worrying, as this money cannot be used to pay suppliers. Since Exact is used from 01-01-2015, we can assume that an age of 730 days is the maximum possible number of days. Using the "aging query" found in the appendix, we get a total amount of €60.725,07. This is all money that is owed that is at least 2 years old, but potentially even older.

Using the same overview applied for the aging analysis, we can sort by total amount per customer, to see if certain clients owe a big amount of money. It becomes evident that one consumer, for example, owes  $\[ \le 26.550,00 \]$  in debt. The figure below also shows that 50% of the money owed is owed by 144 of 734 customers, which equates to around 20%. Because of this it would be beneficial to also focus on customers who still have an old debt still standing. Focusing the efforts on the worst defaulters will get the most out of them.

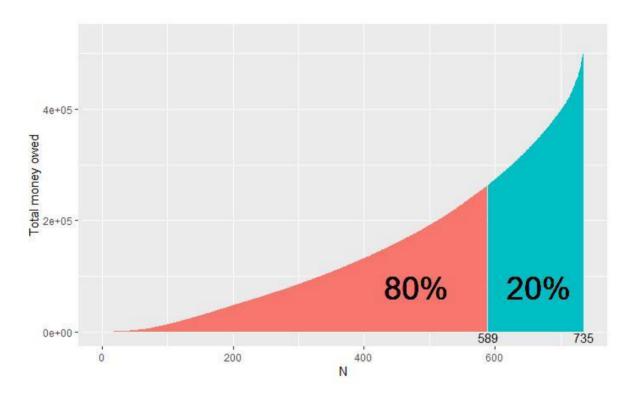
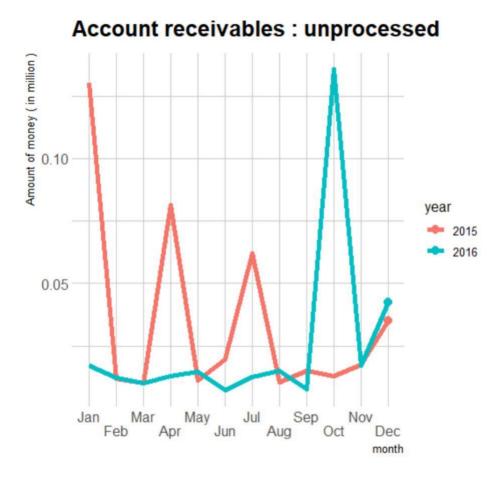


Figure 7. Graph showing the division of the owed money. Generated 17-11-2021

The graph below demonstrates the amount of money that the company has not received from customers within 2015 and 2016. The fact that the lines are growing over time indicates that they are receiving more unpaid invoices from customers. In general, the lines on the graph demonstrate a fluctuation in 2015 and an upward tendency in 2016 in unpaid money from consumers. As we can see, the unpaid money has gone up and down continuously significantly in 2015 (around 0.15 million in January 2015, with an approximate decline, before ending up at 0.03 million in December). In the next year, there is no substantial variation for the couple of first months that amount of unprocessed money stayed fluctuated below 0.025. However, there were a big increase in October that mount of unprocessed money reached nearly 0.15 million. It is important for the company to keep track amount of unprocessed account receivables. With

that, we can be aware of a part of current financial situation, notice the months that unprocessed money has an increased tendency then might be making any predictions or decision further.



*Figure 8.* Graph showing the division of the amount of money that the company has not received from customers based on months

The graph below shows the total amount of unpaid invoices during 2016. The drop is inconsistent, and that when there is a significant increase in leads, there is always a significant increase in leads for the next month, indicating that the quantity of unpaid invoices increases constantly, as seen in Figure 8. Looking back at the past few months of 2016, it's clear that the number of outstanding invoices reached an all-time high, starting from September of this year. As can be seen in the graph below, the same outcomes continue to be seen as we move closer to 2017.

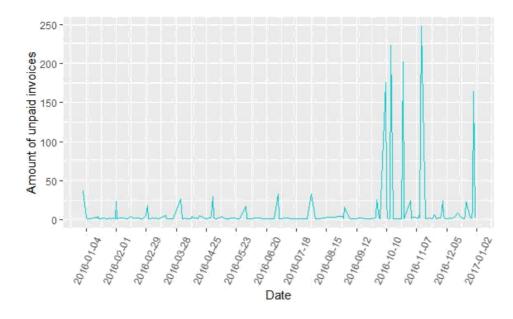


Figure 9. Graph showing the number of unpaid invoices based on 2016.

## • What is needed to make sure the streamlined process is followed in the future?

Overall, the streamlined procedure produces faster results with fewer issues. For example, Carleon's invoicing procedure is still based on paper, even though the total number of outstanding invoices from tenants is increasing. There are issues with allocation of when the initial, monthly, and final payments are collected, processing delays, and so on. Payment reminders are also made by phone, which is inconvenient, just like sending one-time letters via post.

Useful technique to consider is the *workshop*. For example, referring to Exact Globe software, which is implemented in a firm, it takes time for employees to adapt and learn how to apply and use it. With workshops, Carleon personnel will be able to grasp the software much more quickly and easily and will be able to utilize it in the future to save time and effort. (Skill Zone Ltd,(n.d.))

Another factor to consider is *employee morale*, which refers to team and organizational communication to create a successful and engaging environment in Carleon. Employees will be able to adapt better because of the improved communication, as their aids in the definition of job tasks will be clearer, procedures will be properly defined, and the process will be more visible among financial operations. (*Employee morale shapes business success*, 2021)

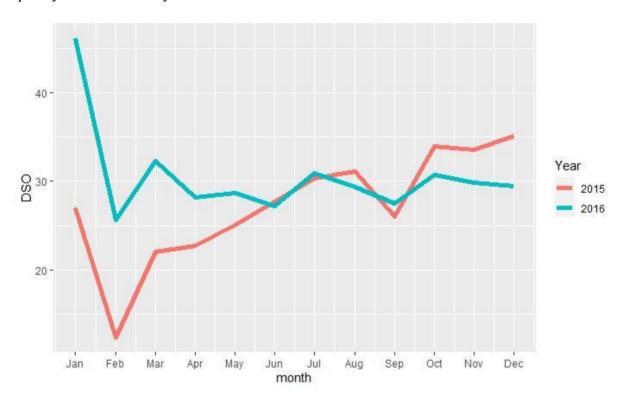
Another point to consider is the possibility of an *internal period of checks*, which means that the accounts receivable and payable should be supervised based on the new accountable financial process. This will allow the procedure to be up-to-date and more within the timing parameters, preventing the payment from falling behind the abrogating money flow. This could also serve as a monitoring component for employees, based on invoicing methods and client interactions. (*How to identify internal control weaknesses - reciprocity, (n.d.)*)

Such suggestions may be able to assist the firm, its customers, and staff in striking a better balance and putting the organization in a stronger position. Another method to consider is a

possible newly formed process that can assist an organization's development in terms of both financial and other aspects.

## What is the current days sales outstanding?

The figure below shows the development of the Days Sales Outstanding, DSO for short, each month. DSO shows the average amount of days it takes a customer to pay his bill after he gets an invoice. It is beneficial to the company to have the DSO as low as possible, as this decreases the payment gap. As visible in the graph, the DSO fluctuates around 30 days, which is not troublesome. It is however a good idea to keep an eye on the DSO, so it is possible to respond quickly when it suddenly increases.



*Figure 10.* Graph showing the days sales outstanding per month.

## **5.SOLUTION**

Based on the previously stated findings, there was a range of analysis directed towards Carleon's invoicing process, as well as suggestions for how to avoid or improve the situation. There was a dedication of a set of probable options that may be found to resolve the current situation at Carleon, such as automating the process, placing additional pressure on past payments, additional staff for financial department, conducting the supplier selection process and streamlining the process in general, based on a range of studies and outside sources.

There is a set of advice that may be given to follow up with the information and approach that one would apply to Carleon itself to contribute as a solution.

#### 5.1 OPTIONS CONSIDER

- Placing additional pressure on past payments
- Streamlining the process in general
- Additional staff for financial department
- Conducting the supplier selection process

Placing greater pressure on prior payments and expediting the process in general are two answers that we are considering, but they are not our primary strategy for assisting Carleon with their process. The same as additional staff for financial department and conducting the supplier selection process.

## 5.3 FINAL SOLUTION

Based on the results from the research questions the following recommendation is made:

## Automate the process

As found in the GAP-analysis, the automation of the process would remove a lot of the pain points currently encountered. For this solution, we recommend using the Exact globe next software that is currently being used within the company. This software package provides tools that can be used to automate invoicing. Furthermore, the system can be set up to provide automated reminders to either the department and/or the customer when a customer invoice is late. The entire setup for the changes to the system can be provided by the exact installation team.

Besides the streamlining of this process, we also strongly recommend pairing this new setup up with an interactive dashboard that will be made by us. This dashboard would highlight the total amount of customer invoices, the status of customer invoices and how long the status has remained unchanged. This way the account payable departments will be able to keep track of

purchase invoices or customer invoice and when they have last received an update. This dashboard can be provided by Sicreuq.

## Dashboard

The main solution approach is providing a better knowledge of the company's financial performance, which will be acquired through a visual dashboard. The dashboard will enable for additional information and analysis of the company's financial situation, as well as a better understanding of the influence of their clients' account payable. While it has already been determined in the preceding research on accounts receivable and payable, this dashboard will take it even farther in a procedure where information will be available for undetermined amount of time and will be flexible based on Exact database. Such an assessment will be able to be improved over time and will be carried out throughout the process and attribute at Carleon.

To clarify, a dashboard will be a representation of the main solution, whereas process automation will be an optimization focused on the solution's visual element.

#### 5.3 BENEFITS

There is a set of beneficial prospects which can be taken in account within the solution towards it, exclaiming the automate process approach.

- Accounting, financial process will be automated and integrated → reduce the workload for employees
- Data becomes more accurate → avoid errors in customer invoices
- Interval between sending invoices to customers and get payments from them is shortened → pay for suppliers on time

While the above benefits are dependent on process automation, there is another alternative that we must consider, which is a dashboard. As a result:

- A clearer picture of the company's financial situation
- The data will be renewed automatically.
- For each data period, the data generation will be optimized and easy to examine.
- It is simple to change the provided visualizations in order to check for details.
- Provides a method for determining key performance indicators.

## 5.4 TIMESCALE

As employee unfamiliar with exact it can take up 6 months for testing and implementation based on automate the process.

While the dashboard will be computerized, it will be finished before the project's end date, which is this week on the 18th.

## 5.5 COSTS

We estimate that Carleon has 200 employees per office according to *Camelot Property* website which has similar approach of business. As a result, we will give 48 people access to Exact software that currently exists and is used within Carleon. Following that, the software team will implement the cost, which will be followed by software subscription charges and individual license costs including given employees.

*Table 3.* Infrastructural determination.

Software	Cost per 30 days
Subscription	€139
Employees	€48
Customer license	€17.50
Subscription Cost	139 + 48*17.50 = 979

*Table 4.* Final total for infrastructural determination.

Software	Cost per year	Cost per 30 days
Accounting Platform (Exact)	€11748	€979

This cost refers to determining how much money will be spent on software and subscriptions. Carleon thus relies on an accounting platform, which might refer to a software subscription for the application as well as the number of people who will have access to it.

*Table 5.* Hired personnel.

Role	Period	Cost
Installation team (4 people)	30 days	3288 per person
Total		3288 * 4 = 13152

This data was gathered from *Software Engineer*, a website that offers a simple costing system for software teams that work on a company's behalf. Carelon's cost determination will be based on a team of four people who will assist in setting up and approaching new *Exact* performance, as well as explaining and adopting employees for its use.

In all, it will contribute  $\le$ 14131 to overall expenditures; however, this is only for the first month of work; after that, it will only contribute  $\le$ 979 to infrastructure costs.

As for the return investment due to a lack of information a calculation on the ROI will be omitted in favour of a description of how the company will get their investment back.

This project has the goal of granting Carleon insight in their money streams. By granting this insight, Carleon will be able to take the necessary action to retrieve the money that is currently being lost in the payment process. Via this way it is up to Carleon to send debt collectors or take other precautionary measures to prevent the current situation from occurring again. With the advised changes Carleon can ensure that they will receive their money sooner instead of having to wait for the client to pay. Carleon will start making the money for this project back when they start seeing the open payments come in.

The above cost calculation is based only on a future automated procedure that Carelon may lay on, even though the dashboard itself will not be profitable and will not contain any costs to construct.

## 5.6 RISKS

Risk evaluates on a separate issuing regarding a company itself without taking in account our advice.

Due to the possibility of a lack of financial information, the department's contribution to their suppliers is on the rise, with no guarantee that the client's payment will be resolved. As a result, they may have to rely on a credit take, which means the company would have to take out a loan to repay them. Consequently, clients who default on their payments will have an impact on Carelon's time and expenditures.

If the company does not contribute to the above-mentioned alternative solutions, they may face bankruptcy due to a lack of account receivable oversight on payments.

Another danger to consider is that if a problem with their financial stake is not resolved soon, the company will be forced to shut down. That is to say, the company will not contribute to the future business of the property and real estate industry.

Another issue to consider is operational risk, which refers to the management style used on a day-to-day basis. This could have a negative impact on company's growth strategy and result in a financial disaster.

## **6.GLOSSARY**

- **CEO** A chief executive officer is the highest-ranking executive in a company.
- **SWOT** Strengths, Weaknesses, Opportunities, and Threats. A SWOT evaluation organizes your top strengths, weaknesses, opportunities, and threats into an organized listing and is provided in a simple two-by-two grid.
- **ICT** International Communication Technology. ICT is a leading industrial technology solutions and service provider in the Netherlands.
- **IST** This stands for how it is now.
- **SOLL** This stands for solution.
- **BPMN** Business Process Model and Notation is a graphical representation for specifying business processes in a business process model.
- **KCC** Klant Contact Centrum which is a crucial point from which all customer interactions across various channels are managed. (Customer Contact Centre)
- ROI Return on investment or return on costs is a ratio between net income and investment.
- **DSO** Days sales outstanding is a measure of the average number of days that it takes a company to collect payment for a sale. The DSO is calculated with the following formula:

  AccountReceivable \* number of Days

  \* number of Days

## 7.CITATION

- Figure 1. Stakeholder analysis. It shows analysis about Carleon's stakeholders.
- Figure 2. Stakeholder quadrant. It displays the power and interest of each Carleon's stakeholders.
- Figure 3. SWOT analysis of Carleon. It shows summary of Carleon's internal and external analysis.
- *Table 1.* Root Cause Analysis. It shows the process of discovering the root causes of problems to identify the solutions.
- Figure 4. Gap analysis BPMN.
- *Table 2.* Gap Analysis. It shows the analysis based on the risk points.
- Figure 5. Ishikawa diagram. It shows the outline of the different steps of the payment process.
- *Figure 6.* Graph showing the total amount of money owed per age.
- *Figure 7.* Graph showing the division of the owed money.
- *Figure 8*. Graph showing the division of the amount of money that the company has not received from customers based on months.
- Figure 9. Graph showing the number of unpaid invoices based on 2016.
- Figure 10. Graph showing the days sales outstanding per month.
- Table 3. Infrastructural determination. It explains the calculations in Business case cost's part.
- *Table 4.* Final total for intrastromal determination. Shows the total amount of costs for intrastromal determination.
- *Table 5.* Hired personnel. It shows the total amount for hiring people to install the software.

## 8.REFERENCES

- 1. Kenton, W. (2021, September 27). *How SWOT (STRENGTH, WEAKNESS, opportunity, And THREAT) analysis works*. Investopedia. Retrieved September 27, 2021, from <a href="https://www.investopedia.com/terms/s/swot.asp">https://www.investopedia.com/terms/s/swot.asp</a>
- 2. *Leaders in the property industry*. Camelot Europe. (n.d.). Retrieved September 28, 2021, from <a href="https://cameloteurope.com/">https://cameloteurope.com/</a>
- 3. Heather-Saul. (2020, October 7). *Property Guardian company prosecuted over former care home where more than 30 guardians lived with one kitchen*. inews.co.uk. Retrieved September 28, 2021, from <a href="https://inews.co.uk/opinion/comment/property-guardian-company-prosecuted-over-former-care-home-where-more-than-30-guardians-lived-with-one-kitchen-274724">https://inews.co.uk/opinion/comment/property-guardian-company-prosecuted-over-former-care-home-where-more-than-30-guardians-lived-with-one-kitchen-274724</a>
- 4. *10 biggest threats facing real estate*. Brad Brinkman. (2017, June 26). Retrieved September 28, 2021, from <a href="https://www.bradbrinkman.com/10-biggest-threats-facing-real-estate/">https://www.bradbrinkman.com/10-biggest-threats-facing-real-estate/</a>
- 5. *How to streamline your work processes*. Smartsheet. (n.d.). Retrieved September 28, 2021, from <a href="https://www.smartsheet.com/streamlining-processes">https://www.smartsheet.com/streamlining-processes</a>
- 6. HBS and RREF. (n.d.). Who are the stakeholders in the Property Industry? FutureLearn. Retrieved September 28, 2021, from <a href="https://www.futurelearn.com/info/courses/pathways-to-property/0/steps/44867">https://www.futurelearn.com/info/courses/pathways-to-property/0/steps/44867</a>
- 7. Boundless. (n.d.). *Boundless management*. Lumen. Retrieved September 28, 2021, from <a href="https://courses.lumenlearning.com/boundless-management/chapter/business-stakeholders/">https://courses.lumenlearning.com/boundless-management/chapter/business-stakeholders/</a>
- 8. Indeed Editorial Team. (2021, February 23). *Property management: Definition and responsibilities*. Indeed Career Guide. Retrieved September 28, 2021, from <a href="https://www.indeed.com/career-advice/finding-a-job/what-is-property-management">https://www.indeed.com/career-advice/finding-a-job/what-is-property-management</a>
- 9. Minning, L. (2021, August 16). *The 10 types of stakeholders that you meet in business*. ActiveCampaign. Retrieved September 28, 2021, from <a href="https://www.activecampaign.com/blog/types-of-stakeholders">https://www.activecampaign.com/blog/types-of-stakeholders</a>.
- 10. Rupa Gohil Partnerships Manager and small business accounting advocate . (2021, June 10). What is an invoice? Raising them & getting paid. Tide Business. Retrieved September 28, 2021, from <a href="https://www.tide.co/blog/business-tips/what-is-an-invoice/">https://www.tide.co/blog/business-tips/what-is-an-invoice/</a>

- 11. *10 ways agencies are getting clients to pay their bills on time*. Instapage. (2020, June 24). Retrieved September 28, 2021, from <a href="https://instapage.com/blog/getting-clients-to-pay-on-time">https://instapage.com/blog/getting-clients-to-pay-on-time</a>
- 12. Heckendorn, K. (2019, July 22). *10 ways to get customers to pay their Invoices Faster*. Paystone. Retrieved September 28, 2021, from <a href="https://www.paystone.com/blog/10-ways-to-get-customers-to-pay-their-invoices-faster">https://www.paystone.com/blog/10-ways-to-get-customers-to-pay-their-invoices-faster</a>
- 13. Lea, S. E., Webley, P., & Levine, R. M. (1993). The economic psychology of consumer debt. *Journal of economic psychology*, *14*(1), 85-119. Skill Zone Ltd, https://www.skillzone.net. (n.d.). *Definition: Workshop*. Association for Qualitative Research (AQR). Retrieved October 3, 2021, from https://www.aqr.org.uk/glossary/workshop
- 14. *Employee morale shapes business success*. Mineral. (2021, May 21). Retrieved October 3, 2021, from <a href="https://trustmineral.com/blog/employee-morale-shapes-business-success/">https://trustmineral.com/blog/employee-morale-shapes-business-success/</a>
- 15. *How to identify internal control weaknesses reciprocity*. (n.d.). Retrieved October 3, 2021, from <a href="https://reciprocity.com/how-to-identify-internal-control-weaknesses/">https://reciprocity.com/how-to-identify-internal-control-weaknesses/</a>
- 16. 10 common project risks (plus how to analyze and solve them). Indeed Career Guide. (n.d.). Retrieved October 4, 2021, from <a href="https://www.indeed.com/career-advice/career-development/project-risks">https://www.indeed.com/career-advice/career-development/project-risks</a>
- 17. Indeed Editorial Team. (2021, February 23). *Property management: Definition and responsibilities*. Indeed Career Guide. Retrieved September 28, 2021, from <a href="https://www.indeed.com/career-advice/finding-a-job/what-is-property-management">https://www.indeed.com/career-advice/finding-a-job/what-is-property-management</a>.
- 18. Salaris: Software engineer | glassdoor. (n.d.). Retrieved October 4, 2021, from <a href="https://www.glassdoor.nl/Salarissen/netherlands-software-engineer-salarissen-srch IL.0.11 IN178 K012,29.htm?countryRedirect=true">https://www.glassdoor.nl/Salarissen/netherlands-software-engineer-salarissen-srch IL.0.11 IN178 K012,29.htm?countryRedirect=true</a>.
- 19. *Discover our range of free E-learnings & trainings*. exact.com. (n.d.). Retrieved October 4, 2021, from <a href="https://www.exact.com/training">https://www.exact.com/training</a>.
- 20. *Exact services help you make the most of your investment*. exact.com. (n.d.). Retrieved October 4, 2021, from <a href="https://www.exact.com/services.">https://www.exact.com/services.</a>
- 21. *Citation generator*. Citation Machine, a Chegg service. (n.d.). Retrieved October 4, 2021, from <a href="https://www.citationmachine.net/apa">https://www.citationmachine.net/apa</a>.
- 22. Mill Valley ,Calif.(n.d.). *Camelot Property Management*. Retrieved October 4, 2021, from <a href="https://www.glassdoor.nl/Overview/Working-at-Camelot-Property-Management-El IE1256629.11,38.htm?countryRedirect=true">https://www.glassdoor.nl/Overview/Working-at-Camelot-Property-Management-El IE1256629.11,38.htm?countryRedirect=true</a>.
- 23. *What is a business case?* APM. (n.d.). Retrieved October 4, 2021, from <a href="https://www.apm.org.uk/resources/what-is-project-management/what-is-a-business-case/">https://www.apm.org.uk/resources/what-is-project-management/what-is-a-business-case/</a>.
- 24. *Introduction to SWOT analysis*. Lucidity. (n.d.). Retrieved October 25, 2021, from <a href="https://getlucidity.com/strategy-resources/swot-analysis/">https://getlucidity.com/strategy-resources/swot-analysis/</a>.
- 25. Trout, J. (2020, May 4). *Fishbone diagram explained: Reliable Plant*. Fishbone Diagram Explained | Reliable Plant. Retrieved October 25, 2021, from <a href="https://www.reliableplant.com/fishbone-diagram-31877">https://www.reliableplant.com/fishbone-diagram-31877</a>.

- 26. What are the biggest financial risks that companies face? Soldo. (2021, April 19). Retrieved October 27, 2021, from <a href="https://www.soldo.com/en-gb/blog/what-are-the-biggest-financial-risks-that-companies-face/">https://www.soldo.com/en-gb/blog/what-are-the-biggest-financial-risks-that-companies-face/</a>.
- 27. *Atradius*. Why is DSO important | Atradius Australia. (n.d.). Retrieved November 4, 2021, from <a href="https://atradius.com.au/article/why-is-dso-important.html">https://atradius.com.au/article/why-is-dso-important.html</a>.

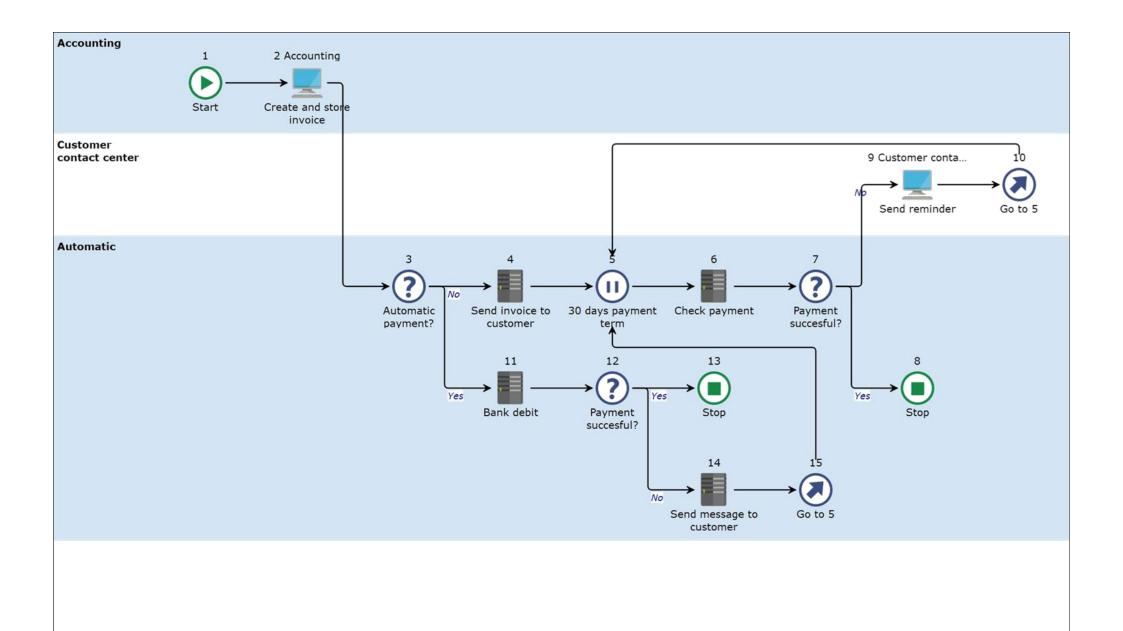
## 10.APPENDIX

Appendix 1

# Monthly payment SOLL

**Process Report** 

**Date**: 29-9-2021



## Monthly payment SOLL

1. Start

## 2. Create and store invoice

RACI
Accounting
Sales dept.

Responsible
Consulted

Customer data
(Electronic Data)

Sales dept.

① Invoice (Document)

Role
Accounting

Description

The invoice is created for the customer and added to the automated invoicing program.

## 3. Automatic payment?

## 4. Send invoice to customer

RACI (Document) & Customer

Payment system Responsible
Accounting Accountable
Customer Informed

● Invoice (Document) ♣ Accounting

## 5. 30 days payment term

## 6. Check payment

RACI
Payment system
Accounting

Responsible
Accountable

Customer
payment info
Data)

Customer contact center Informed
Customer
(Database)

accountno

## ? 7. Payment succesful?

## 8. Stop

## 9. Send reminder

RACI Customer contact center Customer contact center Customer Accounting

Responsible Accountable Informed

Payment succes

(Database)

Database

Payment **(1)** reminder

(Document)

Customer

Role Customer contact center

## 11. Bank debit

**RACI** Payment system Responsible Accounting Accountable Customer Informed

(Electronic

Data)

(Electronic Payment succes Data)

Customer (Database) payment data

## ? 12. Payment succesful?

13. Stop

## 14. Send message to customer

Payment succes

RACI **Payment (1)** (Document) reminder Payment system Responsible Customer contact center Accountable Customer Informed

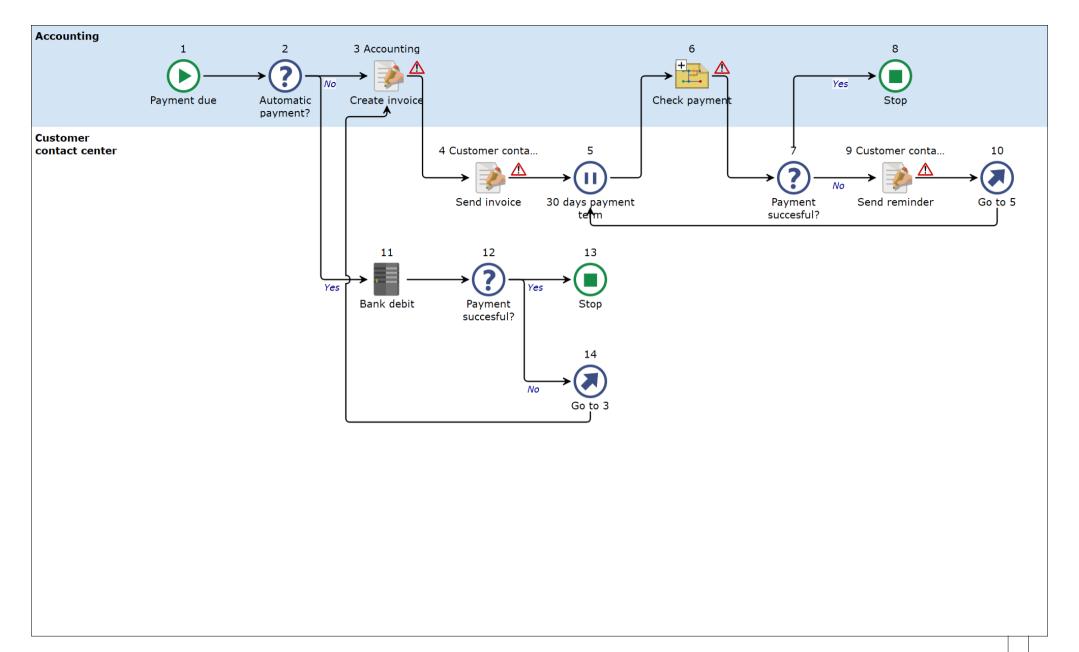
Database

Customer

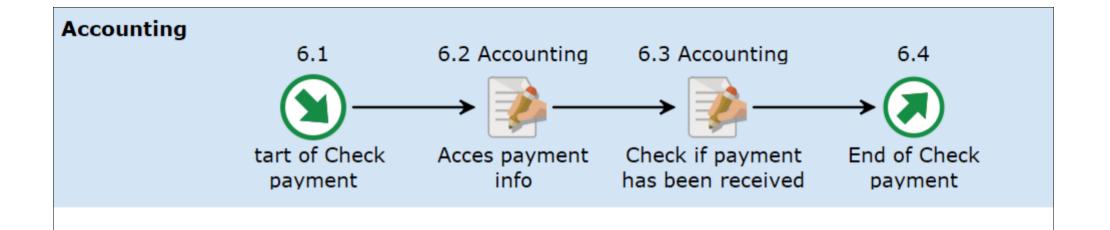
# Monthly payment IST

Process Report

**Date**: 29-9-2021



Monthly payment IST



### Monthly payment IST

- 1. Payment due 2. Automatic payment? 3. Create invoice 🔥 🚠 Role Invoice (Document) Accounting RACI Accounting Responsible Accounting Accountable Informed Customer 4. Send invoice 🔥 Role Invoice (Document) Customer contact center Invoice (Document) RACI Customer contact center Responsible Customer contact center Accountable Informed Customer Accounting
- 5. 30 days payment term
- 6. Check payment 🔥
- (1) 6.1. Start of Check payment
- 6.2. Acces payment info
- Role
  Accounting



13. Stop

#### Page 5 of 5

center

Activity			contact system .		
	Accounting	Customer	Customer	Payment	Sales dept
2. Create and store invoice	R				С
4. Send invoice to customer	Α	1		R	
6. Check payment	Α		I	R	
9. Send reminder	1	I	RA		
11. Bank debit	Α	I		R	
14. Send message to customer		I	Α	R	

### Abbreviations:

R Responsible
A Accountable
C Consulted
Informed

# **QUERIESES**

## Payment method query

```
SELECT COUNT(*)
  FROM [700].[dbo].[amutak]
  WHERE betwijze <> 'I'
```

### Aging query

```
SELECT SUM(AmountDC) AS totalDCOld
SELECT ci.debcode AS Relation
      ,DebtorNumber AS OffsetNumber
      ,ci.cmp_name AS OffSetName
      ,cc.ClassificationID AS Classification
      ,(
            CASE ci.cmp_type
                  WHEN 'A'
                        THEN 'Associate'
                  WHEN 'B'
                        THEN 'Bank'
                  WHEN 'C'
                        THEN 'Customer'
                  WHEN 'D'
                        THEN 'Division'
                  WHEN 'E'
                        THEN 'Employee'
                  WHEN 'N'
                        THEN 'NOT validated'
                  WHEN 'P'
                        THEN 'Prospect'
                  WHEN 'R'
                        THEN 'Reseller'
                  WHEN 'L'
                        THEN 'Lead'
                  WHEN 'S'
                        THEN 'Supplier'
                  WHEN 'T'
                        THEN 'Suspect'
                  ELSE ci.cmp_type
                  END
            ) AS RTYPE
      ,(
            CASE ci.cmp_status
                  WHEN 'A'
                        THEN 'Active'
                  WHEN 'B'
                        THEN 'Blocked'
```

```
WHEN 'E'
                 THEN 'Inactive'
           WHEN 'N'
                 THEN 'NOT validated'
           WHEN 'P'
                 THEN 'Pilot'
           WHEN 'R'
                 THEN 'Reference'
           WHEN 'S'
                THEN 'Passive'
           ELSE ci.cmp_status
           END
     ) AS RSTATUS
,SUM(ROUND((
                 CASE
                       WHEN bt.AmountDC > 0
                             AND bt.Type = 'W'
                             THEN bt.AmountDC
                       ELSE (
                                   CASE
                                         WHEN bt.Type = 'S'
                                               AND bt.AmountDC < 0
                                               THEN - bt.AmountDC
                                         ELSE NULL
                                         END
                                   )
                       END
                 ), 2)) AS Debit
,SUM(ROUND((
                 CASE
                       WHEN bt.AmountDC < 0
                             AND bt.Type = 'W'
                             THEN - bt.AmountDC
                       ELSE (
                                   CASE
                                         WHEN bt.Type = '5'
                                               AND bt.AmountDC > 8
                                               THEN bt.AmountDC
                                         ELSE NULL
                                         END
                                   )
                       END
                 ), 2)) AS Credit
,SUM(ROUND((
                 CASE
                       WHEN DATEDIFF(dd, bt.DueDate, {d
```

```
'2016-12-31' }) BETWEEN 0
                                         AND 30
                                   AND bt.Type = 'W'
                                   THEN bt.AmountDC
                              ELSE (
                                          CASE
                                                WHEN DATEDIFF(dd,
bt.ValueDate, {d '2016-12-31' }) BETWEEN @
                                                           AND 30
                                                     AND bt.Type = 'S'
                                                     THEN - bt.AmountDC
                                                ELSE NULL
                                                END
                                          )
                              END
                        ), 2)) AS T1
      ,SUM(ROUND((
                        CASE
                              WHEN DATEDIFF(dd, bt.DueDate, {d
'2016-12-31' }) BETWEEN 31
                                         AND 60
                                   AND bt.Type = 'W'
                                   THEN bt.AmountDC
                              ELSE (
                                          CASE
                                                WHEN DATEDIFF(dd,
bt.ValueDate, {d '2016-12-31' }) BETWEEN 31
                                                           AND 60
                                                     AND bt.Type = 'S'
                                                     THEN - bt.AmountDC
                                                ELSE NULL
                                                END
                                          )
                              END
                        ), 2)) AS T2
      ,SUM(ROUND((
                        CASE
                              WHEN DATEDIFF(dd, bt.DueDate, {d
'2016-12-31' }) BETWEEN 61
                                          AND 90
                                   AND bt.Type = 'W'
                                   THEN bt.AmountDC
                              ELSE (
                                          CASE
                                               WHEN DATEDIFF(dd,
bt.ValueDate, {d '2016-12-31' }) BETWEEN 61
```

```
AND 98
                                                      AND bt.Type = 'S'
                                                      THEN - bt.AmountDC
                                                ELSE NULL
                                                END
                                          )
                              END
                        ), 2)) AS T3
      ,SUM(ROUND((
                        CASE
                              WHEN DATEDIFF(dd, bt.DueDate, {d
'2016-12-31' }) > 90
                                    AND bt.Type = 'W'
                                    THEN bt.AmountDC
                              ELSE (
                                         CASE
                                                WHEN DATEDIFF(dd,
bt.ValueDate, {d '2016-12-31' }) > 90
                                                      AND bt.Type = 'S'
                                                      THEN - bt.AmountDC
                                                ELSE NULL
                                                END
                                          )
                              END
                        ), 2)) AS T4
      ,SUM(ROUND((
                        CASE
                              WHEN DATEDIFF(dd, bt.DueDate, {d
'2016-12-31' }) < 0
                                    AND bt.Type = 'W'
                                    THEN bt.AmountDC
                              ELSE (
                                          CASE
                                                WHEN DATEDIFF(dd,
bt.ValueDate, {d '2016-12-31' }) < 0
                                                      AND bt.Type = 'S'
                                                      THEN - bt.AmountDC
                                                ELSE NULL
                                                END
                              END
                        ), 2)) AS NotDue
      ,SUM(ROUND((
                        CASE
                              WHEN bt.Type = 'W'
                                    THEN bt.AmountDC
```

```
ELSE - bt.AmountDC
                              END
                        ), 2)) AS AmountDC
      ,COUNT(*) AS TERM
      ,AVG(DATEDIFF(dd, ISNULL(bt.DueDate, bt.ValueDate), {d '2016-12-31'
})) AS iAge
      ,MAX(addr.AddressLine1) AS Adres
      ,MAX(addr.Postcode) AS Postcode
      ,MAX(addr.City) AS City
      ,MAX(addr.Phone) AS Tel
      ,MAX(addr.Fax) AS Fax
      ,MAX(cp.cnt_l_name) AS Contact
      ,MAX(ci.vatnumber) AS VatNumber
      ,ci.cmp_fctry AS Country
      ,MAX(ci.creditline) AS Creditline
FROM (
      (
            SELECT '' AS Empty
                  ,bt.ID
                  ,DebtorNumber
                  ,CreditorNumber
                  ,ValueDate
                  ,AmountDC
                  ,AmountTC
                  ,ProcessingDate
                  ,InvoiceDate
                  ,ReportingDate
                  , Type
                  ,OffSetName
                  ,PaymentType
                  ,SupplierInvoiceNumber
                  ,CAST(Description AS VARCHAR(400)) AS Description
                  ,TransactionType
                  ,OffsetReference
                  ,OffSetLedgerAccountNumber
                  ,bt.Blocked
                  ,DocumentID
                  ,OrderNumber
                  ,InvoiceNumber
                  ,DueDate
                  ,TcCode
                  ,bt.STATUS
                  ,bt.MatchID
                  ,BatchNumber
                  ,OwnBankAccount
```

```
,EntryNumber
                  ,bt.LedgerAccount
                  ,bt.sysguid
                  ,(
                        CASE
                              WHEN ExchangeRate = 0
                                   THEN ROUND(ExchangeRate, 6)
                              ELSE ROUND(1 / ExchangeRate, 6)
                        ) AS ExchangeRate
                  ,bt.Approved
                  ,bt.Approved2
            FROM BankTransactions bt
            LEFT OUTER JOIN (
                  SELECT HS.ID
                       ,HS.StatementType
                  FROM BankTransactions HS
                  WHERE HS. Type = 'S'
                        AND HS.STATUS = 'J'
                        AND HS.DebtorNumber IS NOT NULL
                        AND (
                                    ISNULL(HS.StatementType, '') <> 'F'
                                    AND ISNULL(ISNULL(HS.InvoiceDate,
HS.ProcessingDate), HS.valuedate) <= {d '2016-12-31' }
                              OR HS.StatementType = 'F'
                  ) AS HS ON bt.MatchID = HS.ID
            LEFT OUTER JOIN (
                  SELECT MatchID
                  FROM BankTransactions W
                  WHERE W.Type = 'W'
                        AND W.STATUS <> 'V'
                        AND W.MatchID IS NOT NULL
                        AND W.DebtorNumber IS NOT NULL
                        AND ISNULL(ISNULL(W.InvoiceDate,
W.ProcessingDate), W.ValueDate) > {d '2016-12-31' }
                  GROUP BY MatchID
                  ) AS HW ON bt.MatchID = HW.MatchID
                  AND HS.StatementType = 'F'
            INNER JOIN cicmpy ci ON bt.DebtorNumber = ci.debnr
                  AND bt.DebtorNumber IS NOT NULL
            WHERE Type = 'W'
                  AND bt.STATUS IN (
                        'C'
```

```
, 'A'
                       , 'P'
                       ,'J'
                  AND EntryNumber IS NOT NULL
                  AND DebtorNumber IS NOT NULL
                  AND ROUND(AmountDC, 2) <> 0
                  AND ISNULL(ISNULL(InvoiceDate, ProcessingDate),
ValueDate) <= {d '2016-12-31' }
                  AND (
                        HS.ID IS NULL
                        OR (
                              HS.ID IS NOT NULL
                              AND HW.MatchID IS NOT NULL
                        )
           UNION ALL
            SELECT '' AS Empty
                  ,S.ID
                  ,s.DebtorNumber
                  ,s.CreditorNumber
                  ,s.ValueDate
                  ,(ISNULL(s.AmountDC, 0) - ISNULL(W2.AmountDC, 0)) AS
AmountDC
                  ,(ISNULL(s.AmountTC, 0) - ISNULL(W2.AmountTC, 0)) AS
AmountTC
                  ,s.ProcessingDate
                  ,s.InvoiceDate
                  ,s.ReportingDate
                  ,s.Type
                  ,s.OffSetName
                  ,s.PaymentType
                  ,s.SupplierInvoiceNumber
                  ,CAST(s.Description AS VARCHAR(400)) AS Description
                  ,s.TransactionType
                  ,s.OffsetReference
                  ,s.OffSetLedgerAccountNumber
                  ,s.Blocked
                  ,s.DocumentID
                  ,s.OrderNumber
                  ,ISNULL(s.InvoiceNumber, '') AS InvoiceNumber
                  ,s.DueDate
                  ,s.TCCode
```

```
,s.STATUS
                  ,s.MatchID
                  ,s.BatchNumber
                  ,s.OwnBankAccount
                  ,s.EntryNumber
                  ,s.LedgerAccount
                  ,s.sysguid
                  ,(
                        CASE
                              WHEN ExchangeRate = 0
                                   THEN ROUND(ExchangeRate, 6)
                              ELSE ROUND(1 / ExchangeRate, 6)
                              END
                        ) AS ExchangeRate
                  ,s.Approved
                  ,s.Approved2
            FROM BankTransactions s
            INNER JOIN cicmpy ci ON s.DebtorNumber = ci.debnr
                  AND s.DebtorNumber IS NOT NULL
            LEFT OUTER JOIN (
                 SELECT MatchID
                        ,ROUND(SUM(ROUND(ISNULL(AmountDC, 0), 2)), 2) AS
AmountDC
                        ,ROUND(SUM(ROUND(ISNULL(AmountTC, 0), 2)), 2) AS
AmountTC
                  FROM BankTransactions w
                  WHERE w.Type = 'W'
                        AND W.STATUS IN (
                              'C'
                              ,'A'
                              , 'P'
                              ,'J'
                        AND ISNULL(w.InvoiceDate,
ISNULL(w.ProcessingDate, w.ValueDate)) <= {d '2016-12-31' }</pre>
                        AND w.EntryNumber IS NOT NULL
                  GROUP BY MatchID
                 HAVING MatchID IS NOT NULL
                  ) AS W2 ON W2.MatchID = S.ID
            WHERE s.Type = 'S'
                  AND s.STATUS = 'J'
                  AND s.DebtorNumber IS NOT NULL
                  AND ROUND(s.AmountDC, 2) <> 0
                  AND ROUND((ISNULL(s.AmountDC, 0) - ISNULL(W2.AmountDC,
0)), 2) 🗘 0
                 AND s.ValueDate <= {d '2016-12-31' }
```

```
) bt
INNER JOIN cicmpy ci ON bt.DebtorNumber = ci.debnr
     AND bt.DebtorNumber IS NOT NULL
LEFT OUTER JOIN addresses addr ON ci.cmp_wwn = addr.account
      AND addr.Type = 'INV'
LEFT OUTER JOIN classifications cc ON ci.ClassificationId =
cc.ClassificationID
LEFT OUTER JOIN cientp cp ON cp.cnt_id = ci.cnt_id
WHERE ci.debcode IS NOT NULL
     AND (ci.cmp_type = 'C')
      AND ISNULL(ISNULL(bt.InvoiceDate, bt.ProcessingDate), bt.Valuedate)
<= {d '2016-12-31' }
GROUP BY ci.debcode
      ,DebtorNumber
     ,ci.cmp_name
     ,ci.cmp_type
     ,ci.cmp_status
     ,ci.cmp_fctry
     ,cc.ClassificationID
) AS g
WHERE iAge = 730
```