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# The E-invoice party is here. Why has nobody been invited?

## The effects of digitising the invoicing process in a large multinational organisation.

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## Abstract

The aim of the case study was to examine the forces for and against change in a multinational organisation. This was done by further exploring the revised accounting change model by exposing it to a different management accounting practice. The focus was on e-invoice adoption in invoice management as a management accounting practice. On the basis of a qualitative case study, the revised accounting change model was verified in an invoice management setting with an ex-ante perspective, exploring the forces for and against change in the earlier stages of a project/process. The study led us to conclude that multiple forces for and against change existed in the studied case organisation. There were both advancing forces and barriers to change present assisting the progress of change and preventing change in the management accounting practice. Phenomena that were not applicable on factors in the Revised accounting change model were found. Of these phenomena, Inertia and Incentives was the most interesting one. We propose it could be studied further for a possible addition to the Revised accounting change model.

List of abbreviations:

B2B - Business to business
B2G - Business to government
ERP - Enterprise resource planning
GIT - Global indirect tax
MA - Management accounting
MAC - Management accounting change
O2C - Order to Cash
P2P - Purchase to Pay
RACM - Revised accounting change model
VAT - Value added tax

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# 1. Introduction

Digitalisation, one of the buzzwords of the 21th century so far, and the digitisation and digital transformation of our society, has reshaped the life of most human beings. Everything from social media and smartphones, to digital payment systems, artificial intelligence and Internet of things (IoT) has had an impact on the daily life of people. However, a report from the European Commission concludes that less than 20% of the companies in the EU are highly digitised and that the digital transformation of businesses is driven primarily by fast broadband, mobile applications and social media, factors originally associated with, and demanded by customers and consumers[1]. In Sweden, consumers are used to new technology and can be quick to adapt to changes[2]. On the other hand, companies, and especially governments and legislative actors are slower to react to the changes caused by digitalisation[3]. Furthermore, according to a recent McKinsey report[4], the greatest value from digitalising can be realised when several stakeholders in society act under a joint digital ecosystem, showcasing the importance of consumers, businesses and governments working together. Further on in the report, it is estimated that the greatest value could be harnessed in the automation of knowledge-based working tasks in business analysis, audit and administration through new tools and systems, where invoice management together with other accounting functions are included in the administrative tasks.

One particular area that has been slow to be digitalised is the invoicing process of both corporations and governments, and how they handle their sales and procurement systems. Approximately, only 10% of all invoices in the world are sent on a paperless basis in 2019[5], seemingly not taking advantage of the possible benefits of timely and correct invoicing enabled by e-invoices. Change is in motion in the management of invoices, particularly in the adoption of electronic invoices in business to government (B2G) transactions, and it is picking up pace. The European Commission, through the adoption of the Digital Single Market strategy in 2015[6], has established a common standard on electronic invoices for digital public procurement. With the EU directive on electronic invoicing in public procurement[7], all governments in the EU have had to adopt e-invoicing as their only invoicing method (with a few exceptions, e.g. for national security reasons) at the latest in mid-April, 2019[8]. According to the factsheets for each member state published by the CEF, the European Commission's support function for the Digital Single Market, all member states have now transposed the directive on public procurement[9]. This is forcing a change to the invoicing management systems in organisations that have transactions with governments, municipalities and state enterprises. In conjunction with this push towards e-invoicing, tax agencies have realized the possibilities new digital technologies offer to automate the auditing of VAT reporting, which still is a very manual process around the world (Gullfeldt, Moe & Wadstein, 2019). The exception is South American countries, with well-developed digital tax reporting systems based on e-invoicing[10]. In Europe, Italy is the country that has pushed this the furthest. Italy was quick to follow the EU directive on public procurement, but they have taken e-invoicing regulation to a new level, with mandatory e-invoicing for business to business transaction since the first of January 2019[11]. As more countries are likely to follow Italy, the invoice management systems for large corporations could quickly find themselves under pressure when having to adapt to digital invoices and simultaneously maintain paper invoices on short notice as adoption can be uneven across countries. Thus, it is of interest to determine if organisations can adapt to the global trend of e-invoices and change its management accounting system handling invoices fast enough. However, the external advancing forces might not be enough to overcome the organisational barriers to change, since organisations include complex interrelationships of both external and internal forces, forming different behaviours and attitudes towards changes in management accounting (Parker, 2012).

While most studies in management accounting change (MAC) have examined a change in an organisation, such as the implementation of tools and systems like Balanced scorecard, Activity based costing and beyond budgeting, our study examines why there seems to be a resistance to change when external pressures for change are strong. The purpose of the study is to determine the forces for and against change in the invoice management system in a selected case company and how and why these forces impact the invoice management. We found evidence for both advancing forces and barriers to change in the case organisation. The advancing forces and barriers are asymmetrically affecting different functions in the organisation, something we argue is due to the characteristics of the different functions. A key finding from the study was that similar phenomena could be an advancing force in one part of the organisation, while at the same time proved to be a barrier in another part of the organisation. This finding can be helpful for the case company in their future efforts in digitising the invoice management. The case company is a multinational manufacturer and provider of transport solutions based in Sweden, increasingly affected by the global trends of digitalisation and e-invoices.

## 1.1 Background

Companies' statutory reporting, filing for tax returns, VAT reporting and transfer of financial information to different governmental authorities are still a relatively manual processes around the globe, even though many organisations have financial reporting systems and ERP systems that are almost completely digital (Gullfeldt et al., 2019). However, electronic reporting is on the rise, where the implementation of e-invoices is required for a move to digital reporting. It is just in recent time that European Union member states and their tax authorities have started to adopt e-invoicing, to standardise tax collection activities and to combat tax evasion (Gullfeldt et al., 2019). An electronic invoice is defined as an invoice that is created, sent and received in a structured and digital format. The structured format should allow the invoice to be processed digitally and automatically[12]. This means that scanned paper invoices and pdf-invoices are not classified as e-invoices since the data, even though it is presented in a digital way, is not presented in a structured format. In the EU, e-invoices in business to government (B2G) transactions should be prepared according to the EU standard EN 16931[13], which specifies the content an e-invoice should have[14]. Although there is no official information on an e-invoicing standard for business to business (B2B) transactions in the EU, several governments will implement mandatory e-invoicing rules for B2B locally in the next few years; examples include Portugal, Turkey, Greece, France and Serbia[15,16].

Technical improvements provide tax agencies with the potential to handle vast amounts of data, collecting all e-invoices rather than samples of conventional invoices in an audit process. With decreasing transaction costs for collecting reliable and timely accounting information, tax agencies can implement more complex tax systems that allow for more frequent collection of taxes (Jacobs, 2017). With stricter controls, tax agencies in countries with high VAT-gaps can tackle these large discrepancies between the formal and informal economy[17]. A country's VAT-gap can be explained as the difference between the collectable amount of VAT-revenue businesses owe the tax agency, and the actual amount it collects (Gullfeldt et al., 2019). Most of the countries in Southern Europe have large VAT-gaps, e.g. in Italy and Greece the VAT-gap is over 25%, and the opportunity to decrease this gap drives the development of implementation of mandatory electronic invoicing. To put this number into perspective, Luxembourg and Sweden have VAT-gaps of 1% (ibid.). Italy has taken the lead in decreasing the VAT gap since they implemented mandatory e-invoices for B2B and B2G transactions. In 2017 alone, it was estimated that the EU member states lost EUR 135.5 billion in tax revenue due to inadequate tax collecting systems and VAT fraud[18], and this motivates a strong push for improving tax collecting systems by authorities in the EU member states.

Implementing e-invoicing as the main way of sending invoices will lead to efficiency and productivity gains in the workforce, cost savings and reduced $CO_2$ emissions with the elimination of paper, printing and sending[19,20]. Both companies and governments alike can automate the integration and registration of invoices into their information and accounting systems that will decrease the manual human interaction[21]. An automated invoicing process is quicker and mostly cheaper, as it can be fed directly into companies' payment and accounting systems. This will also shorten the time it takes to retrieve payments from customers with shorter processing time and lower the transaction time as well as increase the reliability of delivery, with easy confirmation when delivery is electronic. Yet, the use of e-invoicing is still low in Europe compared to non-electronic invoice. According to EESPA[22], the number of e-invoices sent in B2G & B2B transaction was approximately 1 billion invoices in 2016. This can be compared to the total of 18 billion B2G & B2B invoices sent in Europe in the same year, according to estimates by the European central bank[23]. In contrast, when Italy enforced mandatory e-invoices for all B2B transactions in 2019, they alone processed 1.4 billion e-invoices during the first nine months of 2019[24], indicating that mandatory e-invoice regulations can have a huge impact on organisations and their required invoicing systems as well as the general market for e-invoices in the EU.

The extent of e-invoicing usage in organisations are dependent on the countries the invoices are sent to and received from, as the business practices and invoicing norms can vary greatly between countries. Coupled with this is the fact that intercompany transactions are subject to local VAT-regulations, meaning that e-invoicing has large VAT implications and it can thus be more effective to implement e-invoicing inside the own organisation before it is implemented towards external parties, like customers and suppliers[25]. The legal reporting environment for multinational organisations is also subject to sudden changes. The EU-directive stating that entities are required to support the receiving and processing of e-invoices is now being implemented in the member states[26]. As previously mentioned, the level of e-invoicing is still low in the EU. The variation in adoption levels across countries and sectors in the EU as well as the strong inertia in adopting e-invoicing payment processes can be even more problematic for the multinational organisations operating there. The lack of harmonisation and standards in operating processes have raised concerns among the members of the EESPA. Coupled with this are the increasing mandatory adoptions of e-invoicing as the only payment method for B2G and B2B transactions[27]. This highly dynamic legal environment can act as a challenge for multinational organisations as sudden changes requires costly and ineffective ad-hoc solutions.

In Europe, both France[28] and Greece are looking at Italy and their model of e-invoicing, pushed by a political ambition to make e-invoices mandatory in B2B transaction (Gullfeldt et al., 2019). Spain, with a ready to use system for handling B2B transactions, is also a potential candidate going in the same direction (ibid.). As Spain's VAT-reporting is transactional, meaning that transactional invoice data for sale and purchase, not just the net amount of all transactions on a monthly basis like in many other jurisdictions, needs to be reported[29]. Additionally, certain organisations in Spain are under the requirement of filing invoice data within four working days from dispatch or receipt[30]. Drawing from the mandatory e-invoicing legislation in Italy, coupled with the effects we have mentioned before, organisations conducting business in France, Greece and Spain, as well as other countries that might follow, will have to anticipate and work proactively with their invoice management. Otherwise they run the risk of being subject to a large and sudden change in their invoicing routines when e-invoices become mandatory. If two of EU's five largest economies were to legally require e-invoicing as the only invoice method, organisations could face tough consequences if their invoicing systems are not properly equipped to handle e-invoices. Multinational organisations can thus be left out of the market in that specific country, since it would be impossible to send and receive invoices.

We see a clear trend in the perception of the electronic invoice, based on three arguments. Firstly, there are benefits of electronic invoicing over conventional invoicing methods for the adopter of electronic invoices, regarding efficiency and costs, as well as administrative burdens. Secondly, we see a push by the European Commission towards mandatory use of electronic invoicing in public procurement, indicating that mandatory B2B-regulation for e-invoicing is on the horizon. Thirdly, and most critical, tax authorities have started to realise that emerging technologies of data processing and cloud computing has the potential to automatically handle and analyse large amount of both structured and unstructured data. This gives them the possibility to demand mandatory e-invoicing for VAT-reporting purposes, as illustrated above in the Italian example of their implementation on mandatory e-invoicing for B2B transactions. All this suggests external pressures that could make organisations require a transformation of their invoice management accounting in the form of adopting e-invoices. In the case company, this process has partially started as some units in the organisation have adopted e-invoices to varying degrees, while others have not.

## 1.2 Purpose of study

The study has determined what forces for and against change exist in a large multinational corporation in the early stages of a management accounting change process. These forces represent both advancing forces and barriers to change within management accounting. Our research question was formulated to establish the goal of the study:

*What forces for and against change exist in the functions managing invoices in the organisation? How and why do these forces impact change in the invoice management at the case company?*

We believe that this research topic is relevant due to the external factors pushing for e-invoice adoption, most notably the fact that the EU and different tax agencies, are emphasising the benefits of electronic invoicing, as well as stipulate mandatory use of e-invoices. We also motivate our study on invoice management with the fact that invoices are important, as the main source of information for revenue as well as for managing cash levels. Revenue is of utmost importance in the income statement making invoice management a crucial part in the communication of an organisation's performance to its stakeholders. When discussing operating capital and cash management, invoice management is a key component in managing the cash levels in any given organisation[31,32]. This study contributes to the literature on management accounting change since changes to invoicing systems as a management accounting system, has not, to our knowledge, been studied. As new invoicing techniques are developed and adopted, research in the area of changes to invoice management is becoming increasingly relevant. Furthermore, while most other studies on MAC are conducted during a change process, and then take an ex-post evaluating stance on the change process, we instead investigate MAC, or lack of MAC, when there is no managed change process ongoing and there are apparent external pressures for change. This approach has, to our knowledge, never been applied in the setting of a factor study, as described by Modell (2007) in the theory section. Finally, we add insights to the case company on what factors have an impact on a change process, which could help them implement e-invoicing in their invoice management across the organisation.

The thesis is structured as follows; First, we present the theoretical framework that underlines our research. In this section we discuss prior research in the field of management accounting change, and we explain the main model used for the analysis: Kasurinen's (2002) Revised accounting change model (RACM). In the second part we describe the methodology that we have used. In the third part the empirical material and the analysis of the material is presented, followed by a discussion of the findings. Finally, a conclusion sums up the research.

## 2. Theoretical Framework

In introducing the subject of the paper, we put emphasis on the digitisation and digital transformation of organisational accounting processes. Digitalisation has been the catalyst that has enabled invoices to be digitised and e-invoices to be a larger part of invoice management in organisations today. However, the changes we study are more relevant to study with broader management accounting change theories, rather than specific theories with a digitalisation focus.

To motivate the use of management accounting literature in our study of the invoice management systems in the case company, we refer to the definition of Management accounting from "A Dictionary of Accounting": "The techniques used to collect, process and present financial and quantitative data within an organisation to help effective performance measurement, cost control, planning, pricing and decision making to take place" (Law, 2016). There are mainly two influential strands in the literature on MAC, factor studies and the process-oriented approach (Modell, 2007). A factor study tries to identify the factors that can both hamper and drive a successful implementation of a specific MA technique or process. The focus of a process-oriented study is the intricate political and social dynamics of implementation, were issues like meaning of change (as opposed to stability) and implementation success (as opposed to failure) are discussed (Modell, 2007). Modell (2007) further emphasise the examination of stakeholder influence on management accounting changes as an influential strand of research on management accounting, were we provide Burns and Vaivio (2001) as an example. Modell (2007) concludes that there are mainly two dominant areas of research when it comes to factor studies. The first area has put focus on the implementation of Activity based costing, which is of less interest for us. Through case study-based research, the aim of the second area of studies was to establish and refine a more general framework for understanding management accounting change. By categorising social processes in changing management accounting practices and identifying factors from these categories, the created generalisable framework could be used to explain MAC (Modell, 2007).

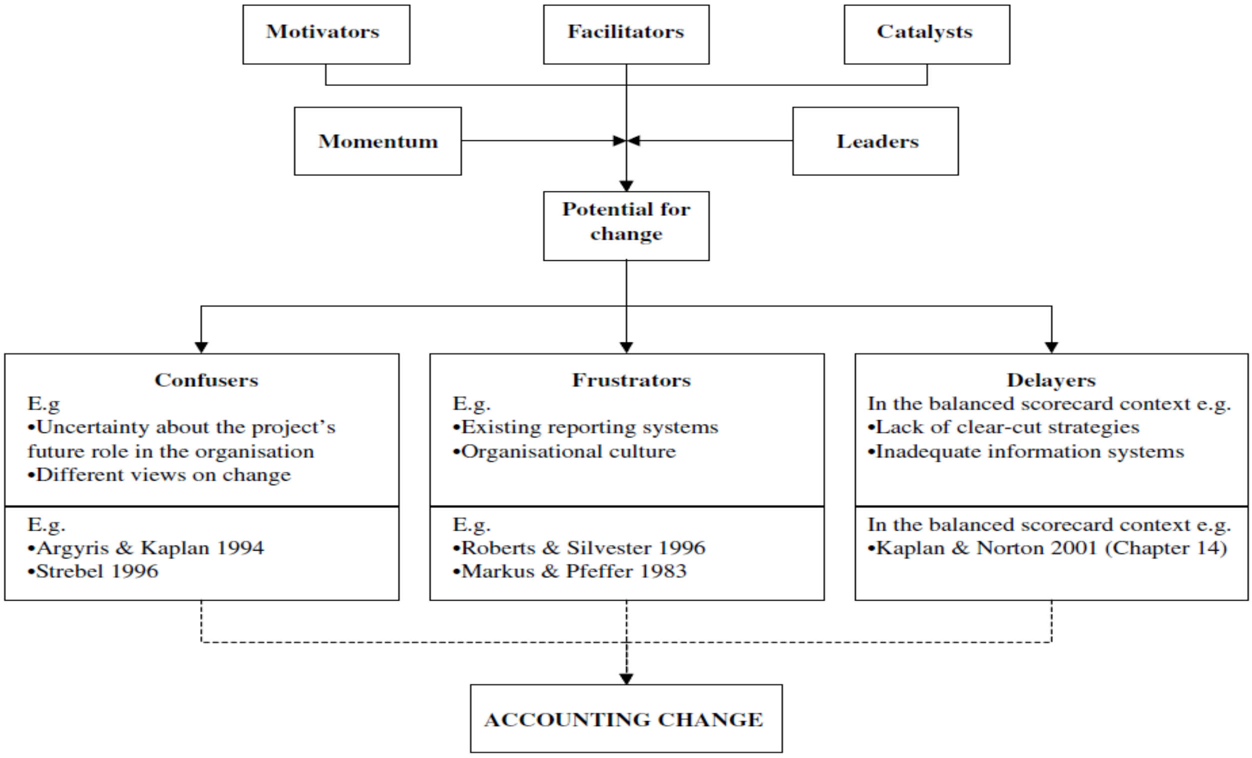


Figure 1. Revised accounting change model, as presented in Kasurinen (2002, p.338)

In the RACM (Figure 1 above), we present factors that have the possibility to foster change, but also prevent change, in the management accounting practices at any chosen organisation. We used these different factors, formulated by Innes & Mitchell (1990), Cobb, Helliar & Innes (1995) and Kasurinen (2002) in our research by influencing the interview guide and as reference points in the coding process. We have also used them as a control in the analysis by making sure that we have succeeded in replicating the model to the extent of fulfilling the purpose of our study. In the following section, we present the factors one by one, with examples from the articles. In conjunction with presenting the factors, we will also present the history of the RACM and how it was developed.

## 2.1 The Revised Accounting Change Model

Innes & Mitchell (1990) study the process of change in management accounting in seven field studies, identifying which factors result in practical development. Three sets of factors are proposed, *Facilitators*, *Motivators* and *Catalysts*. The classification of the factors is based upon the nature and timing of the influence of the change. The first set, *Facilitators*, consists of conditions that are necessary but not sufficient in themselves to finalise a change process. The second set of factors, *Motivators*, refers to the general environmental conditions affecting the change. This is contrasted by the third set of factors, *Catalysts*, which are factors that are directly associated with the process of change in terms of timing. The interaction of these three groups of factors is how MAC occur. *Motivators*, which are not dependent on a certain timing, are constantly applying pressure for change. The *Catalyst*, a specific event, will in conjunction with the *Motivator* initiate the change. The change is then becoming efficient when enough suitable *Facilitating* factors are introduced (Innes & Mitchell, 1990).

Cobb et al. (1995) further explore MAC, adding to the model proposed by Innes & Mitchell (1990). Cobb et al. (1995) argue that the model by Innes & Mitchell is robust on the external elements but lack an explanation on how internal factors explain the change process. In particular, Innes & Mitchell (1990) lack an explicit acknowledgement of the influence of individuals and the barriers that hinder, prevent and delay change. Cobb et al. (1995) develop a revised model, the Accounting change model, adding barriers to change, *Leaders* and *Momentum* for change to the already presented *Facilitators*, *Motivators* and *Catalysts*. Cobb et al. (1995) argue that *Catalysts* are not enough to overcome the barriers to change, without further classifying the barriers to change. The dual role of individuals as both *Catalysts* and *Leaders* is needed to not only initiate the process but also to complete the change process despite facing barriers to change. Furthermore, Cobb et al. (1995) argue that even though *Motivators*, *Facilitators* and *Catalysts* create potential for change, and individuals as *Leaders* overcome the barriers to change, the proposed *Momentum* factor is required in sufficient amounts to maintain the pace of change.

Kasurinen (2002) conducted a longitudinal case study with the aim to examine factors that influence MAC. The case organisation was introducing the balanced scorecard and this implementation was the focus of the study. The aim of the study was to further develop the Accounting change model presented by Cobb et al. (1995), with the addition of the specific barriers to change that may hinder, delay or even prevent the process of MAC in practice. The case was set in a strategic business unit at a large multinational organisation. These barriers to change are categorised by Kasurinen (2002) as *Confusers*, *Frustrators* and *Delayers* (see Figure 1). The *Confusers* are barriers that emerge from having ambiguous goals in a change management process. Uncertainty regarding the purpose of the change acts as a hindering force, disrupting the change. The *Frustrators* are barriers that generate *Frustration* during the change process and leads to a suppression of the change. *Delayers* refer to the barriers of change resulting from implementing new technology. Thus, they are often of a technical character and naturally only an issue in the short term. An example of a *Confuser* in the case of Kasurinen (2002), was the *Confusion* about who the owner of the change process was and what goal it had. When the division general manager, the original owner of the project, resigned, confusion was created as it created uncertainty regarding the new owner and the goal of the Management accounting tool. *Frustration* was created when the business unit managers chose to use a more operational version of the MA-tool over a more strategic version as initially proposed. The official goal of the MA-tool implementation was to connect operational activity to strategy but the “engineering culture” present among business unit managers made it difficult. Finally, the data collection in the MA-tool was problematic at first, leading to a *Delay* in the implementation.

Kasurinen (2002) elaborates on how these forces and factors presented by Innes & Mitchell (1990) and Cobb et al. (1995) are set in the strategic business unit of the case. The *Motivating* factors were an increased complex business environment and the globalisation of the case company’s market. Then there were also more company specific, internal *Motivators*, in the form of the maturity of the product’s lifecycle and issues with a financially oriented control system. The earlier introduction of the MA-tool higher up in the hierarchy, was perceived as a *Facilitator*, since this had legitimized the concept in the division management team.

The main *Catalyst* in the studied case was the business unit general manager (Kasurinen, 2002). The manager had been part of the strategy evaluation team, where the MA-tool had been evaluated, and thus he had knowledge and experience of strategic planning, which made the realisation of the project in the case unit possible (Kasurinen, 2002). Another important *Catalyst* was the implementation of strategies with this tool, as this was a logical step in the case unit due to the divisional general managers’ push for an increased role of strategic planning in the division. A partnership program with a Finnish university, where the MA-tool was one of the themes, and the “strategy analysis process” that had been initiated by the division general manager was seen as the *Momentum* factors in the case unit. Finally, the *Leadership* of the general manager of the division was seen as an important force for the process of change in the case unit. The RACM provides a potential way to analyse the change context at the early stages of a project (Kasurinen, 2002). The model could also be tested, and possibly further developed, by exposing it to other types of change processes (Kasurinen, 2002).

Based on Kasurinen (2002), we form the interview questions and the first part of the analysis. We also include a broad range of noted literature in the field of MAC with the aim of including them as additional explanatory theories and possible control factors in the analysis and conclusion of the thesis. The prior empirical studies are also presented to provide the reader with the knowledge we have accounted for when analysing and interpreting the results of the interviews.

## 2.2 Prior Empirical Studies

Parker (2012) provides an extensive examination of the research in the field of MAC. Parker (2012) covers the development of literature within MAC over the last decades, including topics such as MA and organisational change, external coercive pressure, internal drivers of change, inhibiting or preventing factors for MAC, resistance to Change, management accounting stability and change, and decoupling mechanisms. A multitude of theoretical lenses have been used in prior research on the subject of MA practice and change. This includes, among others, neo-institutional theory, contingency theory and Giddens' structuration theory (Baxter & Chua, 2003). There are a number of empirical studies in the research field of MAC, with a specific focus on influencing forces (Guerreiro, Pereira & Frezatti, 2006; Järvenpää, 2009; Nor-Aziah & Scapens, 2007; Siti-Nabiha & Scapens, 2005; Van der Steen, 2009).

Parker (2012) mentions different fields and focus areas in the research on MAC. One such field focus on the external coercive pressures, where Cobb et al. (1995) and Järvenpää (2009) have contributed. These pressures range from downturns in the market, change in national economic systems, new competition as well as changes in reporting and financial regulation and information technology changes (Parker, 2012). The key take-away from these studies show that organisations, even when they are under external pressure, might not change its MA due to complex interrelationships between external forces and internal factors and patterns of historical behaviours and attitudes. Internal drivers for change is another field that has been extensively investigated. It is important to consider the institutions and organisations when new management accounting systems and techniques are introduced (Scapens, 2006). This point to the importance of including the possible effect that internal factors have in the research of MAC. Marginson (2009) reveals in his study the relevance of normative values in the organisation for managers' decision making, which appears to variously promote and hinder change. Ansari and Bell (2009) also point to the importance the values of the organisational members play in the communication and enactment of change. These studies, together with the earlier mentioned research on external pressure, reveals a complex and dynamic relationship between internal and external factors. Thus, the processes of MAC are a mix of unpredictable and dynamic patterns of implementations, stalling, uptake and failure (Parker 2012).

Factors that inhibits or prevent MAC have been studied in order to develop a better understanding for the causes of MAC. Aside from Kasurinen (2002), there are plenty of articles examining factors that inhibit and prevent change in an organisation's MA. Nor-Aziah and Scapens (2007) found that persistent institutionalised ways of thinking, lack of trust between managers and accountants, power relations between key stakeholders and contradictions in demands from top management and other stakeholder are all inhibitors for MAC. Van der Steen (2009) typifies forms of change resistance as contribution to inertia, of which he finds two sources. Firstly, the imperative ambiguity involved in new rules and processes, and secondly, the conflicts between the intended purpose of change and the self-interest perceived by managers. Siti-Nabiha and Scapens (2005) explore sources of resistance to change, were institutional allegiances to established processes was found to be a major roadblock for change. They also found that confusion around how to use different MA measures, conflict between organisational groups different interest and managers untrained in accounting measurement and evaluation systems were causes for change resistance.

In Burns and Vaivio's article, *Management Accounting Change (2001)*, they present a "Beginners guide" that can be used for analysing change in management accounting. This guide includes three different perspectives on change that provides a way of organising and structuring the complex multidimensional field of management accounting change. It also provides a more nuanced explanation on the role of stakeholders in a change process compared to the RACM (Kasurinen, 2002), which merely labels them *Leaders*. The question on whether there is evidence for an actual change or if it is merely a cosmetic change is a question categorised under the epistemological nature of change by Burns and Vaivio (2001). Although change in management accounting practices can often be synonymous with progress, especially before the change is implemented, the outcome can become associated with negative results and be viewed as a regression for the organisation. Thus, it can be a difference of opinion whenever epistemological change actually is a change or if it is stability, where no change is happening. Management accounting change can be considered revolutionary, a disruptive process with an extensive impact on the organisation, or evolutionary where the change is undertaken in incremental steps. In the logic of change, change can be identified as managed and formal, meaning that the change is executed according to a predetermined design. Actors who control the change are actively managing the process towards the goal. The opposite logic concerns unmanaged and informal change, a process that emerge out of random influences and an organisational drift due to implicit pressures. The previous logics of change can be categorised as a linear or a non-linear change, where the former is considered a systematic process with agreed stages and the latter with a unsystematic and unpredictable development. The tension resulting from the change also actualises the interplay of power and resistance within the organisation as interests clash and coincide. These change processes can be led by proponents of change or by silent agents. Change can be recognised as a central initiative with a top down approach to the implementation where the management team plays a crucial role in overseeing, planning, organising and executing the change. The opposite way of managing the change would be with a bottom up approach, ascending from the local leaders of an often decentralised organisational structure. Burns and Vaivio (2001) also argue that there might be a conflict in the management of change embodied in the conflict between the traditional and static tools of management accounting and the way of managing new, innovative fast paced organisations characterised by informal management, an entrepreneurial spirit and a dynamic environment. Finally, there is the question on how to diffuse the management knowledge in the organisation, whether the expertise will be a discrete knowledge, mastered by a selected few key individuals or whether it will be dispersed within the organisation.

As stated earlier, literature other than Kasurinen (2002) were included as additional explanatory theories in the analysis and discussion of the results. Most notably, we applied the theories by Van der Steen (2009) and Burns and Vaivio (2001) to the results. Additionally, literature by Ansari and Bell (2009); Granlund

(2001); Järvenpää (2009); Lukka (2007); Parker (2012); Scapens (2006); and Siti-Nabina and Scapens (2005) were used to provide a nuanced discussion of the findings.

# 3. Methodology

We analyse the complex and social phenomenon of management accounting change using a qualitative research approach. Granlund (2001), Kasurinen (2002), Lukka (2007) and Länsiluoto & Järvenpää (2010) have all have conducted research in the area of MAC. Merchant & Van der Stede (2006) show that the majority of case studies and articles using a field research method between 1981 and 2004 are done in the area of management accounting, supporting our case for conducting an empirical case study. We have, throughout the research, used interviews and some minor analysis of company documents as the methods to gather and collect data to better understand the forces for and against changes in the company's invoicing management systems. Case studies are often associated with interviews and participant observations as these methods are aligned with the goal of a case study, to conduct an intensive and detailed examination of a case (Bryman & Bell, 2011).

A case company was approached by us with a collaboration proposal for the thesis work. We asked them for ideas and subjects, suggesting an investigation of an issue or a problem they faced. After several meetings with the case company, the issue of e-invoice implementation was agreed upon as the broader subject for the thesis collaboration. Before the subject of the thesis was approved, the characteristics of the case company were examined. We determined that the characteristics of the case company allowed us to conduct a master thesis study in the area of MA. The case company is a multinational organisation, conducting business globally. The organisational structure of the company is varied, meaning that different parts of the organisation are very distinct to each other, where organisational analysis will yield different results in the different parts. For example, the purchasing organisation is centralized while the different sales organisations are decentralised and more independent from each other. They also have a varied product portfolio, with sales of a diversified mix of products to a varied group of customers, both private and public. Finally, the size of the organisation, with close to 100 000 employees, allowed us to interview employees at both managerial and non-managerial positions with ease.

Within such a large organisation, we early on decided to limit the "contact area" in which we were conducting the study. The focus area that we chose for the research was inside the finance community with its proximity to the case company's different invoice management processes. The main part of the interviews was then performed in the accounting services department and its different functions. Due to the large and diverse geographical presence of the company's different markets, we have also chosen to focus on a certain geographical area, Europe. Europe is the company's largest sales market, and the head quarter of the case company is located in Sweden which makes it appropriate to examine this geographical part of the organisation within the limited timeframe that we have.

## 3.1 Data Collection, Interviews & Analysis

### 3.1.1 Data Collection

The data collection was done during March and April in 2020. In total, nine interviewees were interviewed during eight sessions, where each interview session was between 45 and 75 minutes long, in order to give the interviewees the possibility to freely talk about the interview question. An overview of the employees that have been interviewed can be seen in Table 1. Both the number of interviews and the participants chosen for the interviews were decided by the saturation principle, meaning that every new interview was chosen based on how much information we currently had on our research subject.

| Position | Function | Interview Time |
|---|---|---|
| Senior Accountant & Team Leader | *P2P* | 75 min |
| Manager | *P2P* | 60 min |
| Senior Accountant & Team Leader | *P2P* | 60 min |
| Tax Manager | *GIT/Global VAT* | 75 min |
| Team Leader local Swedish VAT | *Local VAT* | 60 min |
| Business Process Manager | *O2C* | 60 min |
| Senior Accountant & Team Leader | *O2C* | 45 min |
| Accountant* | *O2C* | 45 min |
| Accountant* | *O2C* | 45 min |
| *Were interviewed in the same interview session | | |

*Table 1: Overview interviewees*

We have used semi-structured interviews conducted with various employees in different positions at the case company. We have mainly used open questions. Due to the unprecedented situation that the world has faced during the spring in 2020 with the outbreak of Covid-19, during the time we conducted our research, all of the interviews were performed through online audio calls, instead of the preferred face-to-face interviews that was planned beforehand. With many employees at the case company located in different geographical locations, digital interviews were also a necessity to be able to make contact with some of the respondents. We were granted permission to record all interviews. The interview recordings have been transcribed, creating the main body of data used in our analysis. The transcripts are not included in the appendix as it would add almost 100 pages to the thesis, instead they are available upon request. Due to short-term layoffs at the case company during the Covid-19 pandemic, we had some difficulties connecting to some of our interviewees during the data collection period.

### 3.1.2 The Interviews

The interviews were based on an interview guide in order to make sure that all relevant topics for our research were covered (Bryman & Bell, 2011). We split the interview guide into two parts, were we in the first part focused on questions related to the process of the different functions working with invoice management, to get a better understanding of invoice management and how the different invoicing systems operates. The second part was then focused on questions to answer the research question, what forces for and against change exists in the organisation and how and why it can impact their invoice management. When formulating the questions, prior literature, mainly Kasurinen (2002), guided us in the process. The aim of the questions was for the respondent to reflect on how the forces for and against change impact change processes in the organisation. Our goal was then to match these forces with the barriers and advancing forces to change presented by Kasurinen's RACM (2002). More specifically, the questions were asked in a way that was supposed to make the respondent reflect on his or her experience with, and attitude towards, change or resistance to change in the invoice management. By asking questions on why a change did or did not happen, we will find the advancing forces and barriers experienced by the respondents. Additionally, some of the respondents had experience from a specific project conducted at the case company related to digitisation of their invoice process. They were asked additional questions related to the characteristics of the project and what advancing forces and barriers existed within the project. Please find the interview guide in Appendix A.

We received help from a manager at the case company in choosing the interview subjects. We requested a number of different roles to interview and an employee at a managerial level contacted the appropriate interview subjects. This manager chose the majority of the interviewees as she has knowledge about which employees matched our criterion as interview subject. Additionally, due to her managerial authority, it was easier to get in contact with the chosen employees. In some of the cases, whenever we felt that we wanted further information regarding a specific topic, the interviewees were able to provide names on possible future interview subjects. In both cases, whenever the manager chose respondents for us or whenever we choose the next respondent based on an earlier respondent, we have followed the saturation principle when requesting or choosing the next interview. Since employees from three different departments were interviewed, we eventually reached a point where the answers provided were similar to a point where we felt like an additional interview with an employee at the same department would be redundant.

Of the eight interview sessions conducted, three were performed with employees in the purchase to pay (P2P) function in the accounting services department. P2P handles the accounts payables and most contact with suppliers regarding invoices. Three of the interviews were conducted with employees in the order to cash (O2C) function at the accounting services department. The O2C function is responsible for the accounts receivable, payment collection and in our case, invoicing of customers. Finally, two of the interviews were conducted with central roles, working with VAT, which interacts with invoice management across the whole organisation. Since most VAT controls are followed up on an invoice level, the VAT accountants are well experienced in the managing of invoices. By interviewing employees in three different areas of the case company, which involves the invoice interaction with both suppliers and customers, as well as some central roles involving the legal invoice requirements from a VAT perspective, we strive to cover the entire information flow where invoices are involved in the case company. The reason for choosing the P2P function was to cover the invoice management processes where supplier contact was present in the case company. Then, by choosing the O2C function, we could examine the invoice management processes on the customer side, where the revenue is "collected". When reviewing the organisational structure to determine what roles to interview, we noticed that the purchasing function is very different to the sales function. Most of the purchasing is centralised, while the different sales functions are decentralised by both product group and geographical location. This led us to believe that there are differences in attitudes and opinions in the purchasing and sales functions. The reason for choosing employees with VAT expertise was to capture the general impression for the full invoice management picture at the organisation, as invoices, both on the supply and customer side, are essential when working with VAT. The legal VAT-reporting requirements makes the managers within the supporting VAT functions experts in questions and issues regarding invoices throughout the organisation, including P2P, O2C and in the business operations.

### 3.1.3 Analysis

One of the main issues with qualitative data collection is the fact that it rapidly generates large amounts of unstructured data in the form of interview transcripts. Each interview has produced 8-16 pages of transcript, giving us roughly 95 pages of interview material. In our analysis, we used coding to break down data into components. Breaking down the data into components and labelling them allowed us to identify data with a high potential of theoretical significance as well as data containing words related to the central concepts of the study (Bryman & Bell, 2011). The outcomes of our coding process were themes, categories and subcategories. These labels can be roughly compared to concepts and categories proposed by Bryman and Bell (2011). Themes are above categories in level of abstraction and can subsume two or more categories. The categories were then further coded into subcategories. Finally, we identified and analysed the relationship between different categories to hypothesise about their possible connections. Coding the transcripts allowed us to select the most relevant data to present. As we have limited space in presenting the findings, only the most relevant findings and quotes are presented. Choosing them was facilitated by the coding outcome. The analysis of the interviews was conducted in Nvivo. Nvivo allowed us to sort and structure the data based on the coding that we labelled the data with and with Nvivo we could keep the analysis more structured with codes, themes, categories and subcategories much more accessible and clearer.

In the first round of read-through of the eight transcripts, we coded keeping two themes in mind. The first theme that we coded was anything connected to different processes. This was done for our own understanding rather than for the actual outcome of the research. The second theme was for when a force on anything within the subject of change was mentioned, both for change and resistance to change. We also used and coded a third code "other significant or interesting paragraphs" for when the interviewees mentioned something we deemed interesting but that did not match the two main themes. On the second read-through, we went deeper, and broke down the earlier process-related themes into more detailed ones, based on the organisational structure where the different processes occurred. The parts of the transcripts that were coded as forces for and against change was divided with a more nuanced picture into our two main categories, barriers and advancing forces. During the third read-through, the two main categories were broken down to the subcategories, that is, the factors presented in Kasurinen's (2002) RACM, namely: *Facilitators*, *Catalyst*, *Motivators*, *Momentum* and *Leaders* for the advancing forces category, and *Confusers*, *Delayers* and *Frustrators* as the barrier's category. In addition to these subcategories, we also categorised the forces for and against change that we found, which were not applicable in any of the other subcategories, into our own factor, other barriers. Within this other barrier factor, we captured interesting discussions, other phrases and phenomena that were not applicable with Kasurinen's (2002) framework, which instead could be analysed and discussed with the help of the prior empirical studies and literature presented in our theoretical framework.

### 3.1.4 Document analysis

We have, in conjunction with the interviews, conducted a minor document analysis of organisational documents at the case company, as this gave us valuable background information and helped us to build up a description of the organisation at the case company (Bryman & Bell, 2011). The documents have been both public and non-public, including annual reports, organisational charts, policy statements and internal policy documents. The documents have been analysed as an extra dimension in the analysis and as a referencing point to the produced interview material. This has especially been helpful to understand the process of the different accounting functions, as we have been able to study process & flow -charts and -descriptions which have helped us, most notably, the visualisation of the charts made it easier to understand the process description. The policy documents have helped us cross-reference some of the invoicing policies stated at group level, supposedly applicable for all invoicing process in the organisation, with the explanation given during the interviews.

## 3.2 Limitations

The potential problems that can arise when conducting interviews are many. We have identified several issues that can limit the result of our study when it comes to the interview part of the research. The first possible limitation is what Collis & Hussey (2014) call “two hats”. The respondent might have multiple roles in the company and might give different answers, depending on which “hat” the respondent puts on. This means we have to determine if the interviewee gives a personal opinion (first hat) or a policy statement (second hat). Secondly, the other issue we have identified is the possibility of getting biased answers, were the respondent answer according to what he or she believes is the correct answer to a specific question (Collis & Hussey, 2014). Thirdly, recording the interviews could make the interview respondent feel uncomfortable and prevent them from being honest answering the question. To mitigate all of the above-mentioned issues we explained how we intended to use the information and ensured the interview respondent that they would be anonymous. We also encouraged the respondents to answer the questions based on their perception and their personal opinion, not according to the policy nor rules of the case company.

The interviews were conducted in English or Swedish. Some of the interviewees’ native language were not English, and this created some language barriers and grammatical errors when the interviews were transcribed. Thus, when we transcribed the interviews as well as when we analysed them, we found certain parts of the interviews where the sentences made little sense in their original form or where pronouns were used and there was uncertainty on what the interviewee actually referred to. In the cases where the context provides enough information so that we were able to understand the interviewee with some slight changes in the formulation, we made the change. In the few cases where we could not say for certain what the interviewee meant, we left the section out of the analysis. For the Swedish respondents, we decided to conduct the interviews in Swedish to allow them to speak more freely. The interviews in Swedish were later translated to English before being analysed, allowing the analysis to be more coherent and with higher quality. The risk of mistranslating has been mitigated by checking the original text once again when using the part in the analysis or when stating a quote.

We have also identified a limitation in the sample size. The limit in sample size can impact the variability in the answers we have collected during the interviews, making the sample less representative than we might have hoped for in the beginning. This limitation is mitigated by conducting interviews with employees from several departments and with employees in both managerial and non-managerial positions.

The fact that a manager employed by the case company aided us in choosing the interview respondents is a limitation since the manager could have chosen interview respondents that the manager believed would respond in a certain way. For example, an employee that the manager knows could paint a positive picture of the case company or provide biased answers in some other way, could then be chosen. The fact that we requested certain roles or employees at certain departments of the case company mitigates this limitation somewhat since the manager is forced to choose from a specific sample. We also believe that the benefits mentioned earlier, that the manager having superior knowledge regarding work tasks as well as managerial authority, outweighs the downsides.

There are some limitations with the use of Kasurinen’s RACM (2002). Länsiluoto and Järvenpää (2010) used the model when examining the use of BSC and environmental management issues. In their research, they found that change factors were not static, and thus propose that Kasurinen’s model could be developed because of both static and dynamic change factors were found. Another critique presented by Länsiluoto and Järvenpää (2010) was the lack of emphasis on culture and its interplay with management systems in the model by Kasurinen. Another limitation with the model, that is discussed by Modell (2007), is the little attention it pays to the underlying conflicts of interest that possibly can explain the deeply rooted barriers to change in the organisation's culture. Although there are limitations to Kasurinen's (2002) model, it is created, revised and used by leading researchers in the field of MAC and thus deemed credible enough for our purpose.

# 4. Empirical material and analysis

In this section, the findings and analysis are presented. We start by shortly introducing the case company, its organisation and the studied functions. Further on, we describe the processes of the three different finance functions in which the interviews have taken place, namely Purchase to Pay (P2P), Order to Cash (O2C), as well as global and local VAT. Then the results concerning the main theme and the forces for and against change found in the interviews, are presented along with the analysis of the suggested findings.

## 4.1 Case Company and processes

The case company that we have studied is a global, multinational organisation based in Sweden with sales in 190 markets around the world. The company operates within transportation and offers a wide range of transport solutions from its ten different business areas. Its product portfolio ranges from heavy duty and medium trucks, busses and construction equipment, to large industrial & diesel engines and financial services for all its product offerings. Given the large organisation and its huge geographical reach, and that the company consists of an extensive number of legal entities around the world, with approximately 300 entities, it can be said that it is a complex organisation. This is also stated by several interviewees. The organisational structure is a difficult subject, given the complexity and the size of the company. With the invoice management in mind, it is not necessary to describe the structure in detail, but a short overview is needed to understand the issue at hand. The structure can be described in three larger parts, where we have the group & headquarter functions at the top where HR, legal & compliance, IT, communication and finance are situated. In the second part the ten business areas are located, in which the main selling organisations for each business area and it respective geographical markets are situated. Thirdly, the company has three central support functions for research & development, production & operations, and its purchasing & procurement for the majority of its business areas. The difference between these central support functions as well as the group & HQ functions, where both purchasing and the finance community are situated, and the de-centralised selling organisations in the business areas, are of interest when the findings from the interviews will be presented later on.

### 4.1.1 Purchase to Pay

In the P2P function, all invoices related to purchases done by each of the organisation's legal entities are managed. This function is located in the company's accounting services department. With the vast numbers of legal entities, the function is divided into geographical scopes, were each scope is responsible for one, or a couple of countries. These scopes then handle all company codes, were each company code represent a legal entity, within that country. As an example, in the Swedish scope there are around 30 company codes that the team responsible for Sweden handles, independent on what business area these company codes exist in. The main responsibility of the P2P function is to receive and collect supplier invoices and making sure that they are paid on time. These invoices are delivered in three ways; either through EDI's that are equivalent to e-invoices, pdf-invoices that are automatically sorted on arrival through a functional mailbox, or by paper. The paper invoices arrive by post, and after arrival they have to be scanned and sent for registration into the case company's master finance system, SAP. When we discussed the different ways to receive the different forms of invoices, a trend was being identified. Depending on what flow the invoices are connected to, the invoice management is different. There are mainly two flows, called AP, for automotive products, and NAP, for non-automotive products. In the AP flow, where the invoices connected to the operations and the production are arriving, and which is by far the largest flow, almost 99% of the invoices arrive in EDI format. Then, in the NAP flow, a majority of the invoices are received as paper invoices. This was the case before the initiative of the zero paper invoicing project was started. The goal of the project was to convert suppliers to either the new PDF-solution or the existing EDI solution. One of the reasons that it goes paper to pdf, instead of paper directly to EDI, is because PDFs are a relatively new phenomenon at the case company:

*"PDF is like a very new thing at (Case company)"* (Senior Accountant 1, P2P)

And the project has already produced positive results. To give an example of the change this project has had in the two largest scopes, Sweden and France, the average monthly number of paper invoice in the first quarter of 2019 was 18 300 for Sweden and 13 400 for France. This had decreased substantially a year later, with the average number of paper invoices in the first quarter of 2020 for Sweden being 12 200 invoices and 10 700 invoices for France. In Sweden, the decrease was around 33% on a yearly basis, while it decreased 20 % in France. One of the driving forces behind this initiative and project is the decreasing costs that can be achieved when paper invoices are digitised by converting the supplier to PDF- or EDI invoices. Continuously lowering cost is an important goal of the P2P function.

### 4.1.2 Order to Cash

The order to cash function works on the opposite side of the P2P function, as its main task is the responsibility for the accounts receivables, taking care of the payments from customers and the invoices that are issued by the businesses. They also handle the collection activity when invoices are not paid on time by the customers. In most cases, the O2C function do not own the invoicing process, as several respondents mentioned:

*"... we are not the owners of the invoicing process. Meaning that the ownership of the invoicing in general is on the business side..."* (Business process manager, O2C)

So, in most cases, each business area has its own invoice management system, or sometimes multiple systems, which are differentiated between the businesses:

*"So usually there are some one, two, three leading systems that are kind of specific for the business."* (Business process manager, O2C)

In addition to all these different systems, there is an internal company-wide invoicing system which from the start only was supposed to be used for non-recurring internal invoicing of services. This system has grown over the years and is today used for all types of invoices, as well as for sending invoices to non-group companies. The main types are mostly internal administrative and miscellaneous invoices, but there are also invoices which goes to customers, that normally should go through the businesses own systems. This process is owned by the O2C function and it can be seen as an internal ad-hoc solution when the businesses own systems are unable to perform a certain task:

"*In practice, (internal invoice system) invoicing... is happening more or less for everything when needed. Meaning that even if we are not supposed to use this way of invoicing for hard products, for trucks, for busses, for parts... if the company doesn't have any other system to issue the invoice, then this solution for sure will be used".* (Business Process Manager, O2C).

The O2C function is divided in teams that are responsible for each business area and not by a specific country or region, which is the case for P2P. O2C also have 60 to 70 company codes in its scope for the internal invoicing system. On a more practical note, when an internal invoice is created, the data is sent by the business through an excel template, in which the data is manually loaded, and then the different O2C teams, both in Poland and India, depending on company code, create these invoices directly into SAP. It is a flexible, but very manual process:

*"(Internal invoicing system), which is really like a Journal Voucher, you create an invoice layout and the invoice layout it is a bit like a typewriter, you can type what you want and then you choose a VAT code manually, it is not automated in some way."*(GIT Manager)

This manual process, where the data is not based on any logics through a feeder system, with predefined rules, can create human errors, especially with the settings of VAT codes:

*"The biggest problem is that since there is no direct logic in the base, it puts rather high demands on the user... it can be a little tricky sometimes with VAT... There is then a great risk of errors... there is a major disadvantage with that solution."* (GIT Manager).

### 4.1.3 Global and local VAT

The two VAT functions we have conducted interviews with are the local Swedish VAT function and the Global Indirect tax function. The local function is responsible for the Swedish companies' VAT declarations and other VAT inquiries concerning Swedish VAT, as well as the Swedish companies' international VAT registrations. The global indirect tax (GIT) function is responsible for supporting and making sure VAT and other indirect tax regulations are applied and followed throughout the organisation. They offer support across the organisation, to accounting services, the different business processes, process and IT community, and this applies for both incoming (supplier) invoices and outgoing (customer) invoices, as well as internal, group companies' transactions and invoices:

*"So my job is to make sure that we can handle VAT calculations systematically in our systems, both outgoing and incoming invoices, and make demands on different systems so that they know what changes they have to make and so on. So you could say that the invoices are the basis of all VAT accounting, without invoices we really have nothing to account for."* (GIT Manager)

## 4.2 Invoice management and forces for and against change

During the interviews, a lot of interesting findings and opinions that can be connected to the forces that Kasurinen (2002) describes in the RACM were found. The findings are presented according to the factors defined by Kasurinen (2002), starting with the advancing forces followed by the barriers.

### 4.2.1 Advancing forces

The suggested advancing forces that were found in the interview material are presented according to Kasurinen (2002), as *Facilitators*, *Motivators*, *Catalysts*, *Momentum* and *Leaders*.

#### 4.2.1.1 Facilitators

*Facilitators* are factors that are necessary for the change process but not sufficient by themselves to initiate the process. Since the digitisation of the invoice management is highly dependent on the systems of the case company, the IT-function, including the IT infrastructure, is mentioned several times as the most important support activity to the functions working with invoices, which creates the necessary infrastructure for e-invoicing implementation when the time comes and it is needed:

*"But we have a team that, on the EDI site... they are constantly working to update our in-house format… we are ready in such a way that there are people who have experience in implementing, there is infrastructure for it."* (GIT Manager)

Another set of *Facilitators* is tied to the posting of the invoices. For example, the AP invoices, which by far are the largest in numbers, are standardised to a large extent and are generally posted on the same one or two accounts in the general ledger. From a practical standpoint, this is a necessary condition for automation of the invoice posting process in the case company. This is repeatedly stated by several interviewees. Beyond the necessity of standardised invoices for a possible automation of invoice posting, this can *Motivate* the case company for e-invoice implementation as automation can lower manual corrections and intervention, decreasing cost and human errors:

"*When you have EDI invoices, it is really easy to code such a document because there is for example one G/L account or two G/L accounts where this cost are going to. So this is easier to have automatic solution for it."* (Manager P2P)

On a similar note, organisational structure was also mentioned as something that, from a practical standpoint, can be classified as a *Facilitator*. Several respondents claim that the centralised structure of the P2P organisation has had a positive influence on the process of digitising and changing the invoice management:

*"I would think that the reason is that there has been a central organisation that has had an interest in running it which is not on the sales side in the same way."* (GIT Manager)

Legal entities of the case company, with low volumes of invoices that are connected to few systems and subsystems with a less complex digital infrastructure, can lead to the invoice management being easier to digitise. For that reason, regions with small volumes of invoices are classified as *Facilitators*. One example for this is for a specific company code in Poland:

*"...but it's only like a 100 invoices a month, so it's really a peanut."* (Manager, P2P)

This indicates that the smaller legal entities in the organisation might be easier to digitise with EDI or PDF connections and solutions, as their systems are less complex.

#### 4.2.1.2 Motivators

*Motivators* are general factors with a positive influence on change. The main *Motivator* mentioned by all interviewees was the ambition to decrease paper invoices. The reasons are many. One of them is the relatively high cost associated with the processing of incoming paper invoices:

*"...on P2P, because they want to reduce paper invoice handling, and that is a pure cost issue. I think I've heard the figures somewhere that it costs 60 SEK to handle a paper invoice but around 6 SEK to handle an electronic invoice so there are quite large cost savings that you can link to this."* (GIT Manager)

Furthermore, decreasing cost for the P2P function is a *Motivator* in a similar sense, as the functions total cost is one of their main key performance metrics:

*"It is probably also not insignificant that (Accounting function) is measured at cost. This has always been the case. Now they may have said that it is not so anymore but historically it has been that (Accounting function) is a cost item."* (GIT Manager)

Tied to the cost of human intervention for paper invoices is the fact that humans make errors. Several interviewees named automation and reduction of manual input with the risk of human errors as the main *Motivator* to why they want to digitise the invoice process. Automated and digital invoices also minimise the manual adjustments needed for VAT reporting to be correct:

"*If we get the invoice in a predetermined format with all the information in the right place, then we can automate further down the process, in the VAT management process."* (GIT Manager)

The reputation of the case company as perceived by both customers and the suppliers are also something that acts as a *Motivator* to digitise the invoice process. Electronic- and PDF-invoices arrives instantaneously and seldom goes missing, compared to what paper invoices sent by the post tend to do:

*"Because, actually, the payment on time is our key priority"* (Manager, P2P)

*"Quite often we are missing invoices. As it occurred from some statistics that we took out two years ago, missing invoices is the most common reason why the supplier calls us or contacts us."* (Senior Accountant 1, P2P)

The higher accuracy of the delivered invoices also speeds up the process of payment, both to the suppliers and from the customers, since the case company, as well as their supplier, often have payment terms stating that payment occurs a certain amount of days from invoice arrival (normally 30 to 90 days), not from the stated invoice date. Then, the confirmation that the invoices have been received by the case company is something that suppliers appreciate, as the confirmation with e-invoices are immediate. This will lead to payments being done on time and generally make the case company to be perceived as a professional and serious organisation.

*"Secondly, the efficiency and quality of the invoices, and the payment arrival on time, it has a positive effect. Suppliers will be happy, and the case company will not get a lot of calls to the contact centre.... It just makes it all more professional"* (Senior Accountant 2, P2P)

The decrease in delivery time, as well as the increased delivery accuracy of the invoices and its confirmations and the timelier payments are factors that are predicted to increase the customer and supplier satisfaction, which is seen as a strong *Motivator*.

*"And they (suppliers) are very happy to know that the invoice, firstly it will not go missing, and secondly, the post will not take so long to come, they can just send it and that's it through PDF, and they are very happy about it."* (Senior Accountant 2, P2P)

*"But with e-invoicing I feel that it can be a bit more accurate deliver and so we can have a higher level of information when it comes to the delivery status that the original invoice actually reached the customer, so in that case this flow is secured."* (Business Process Manager, O2C)

The fact that digitised invoices are seen as eco-friendly, with less paper usage, can *Motivate* the company. This reduction in paper is seen as a bonus since it decreases costs and boost the image of the case company's sustainability work.

Large suppliers with large volumes have already adopted e-invoice solutions, lowering the threshold for the case company to create an EDI connection to the supplier, creating a *Motivating* factor for invoice digitisation:

*"We are expanding our EDI connections... The latest one that we are adding… is called Svefaktura. This is a type of EDI connection that Transportstyrelsen, (local municipalities) and Telia have. These are very big suppliers. Suppliers that send us a lot of different reminders or collection demands."* (Senior Accountant 1, P2P)

Even though the large suppliers are not outright demanding it, the case company invests in new systems and connections towards the suppliers as the case company predicts the benefits will be larger than the costs.

#### 4.2.1.3 Catalysts

*Catalysts* are specific factors for change in terms of timing. A descriptive example of a *Catalyst* is when governments demand e-invoices in public procurement. Similar pressure is put on the case company when its customers demand electronic invoices and threatens to cancel all future business with them if they don't comply:

*"However, something I have heard that the customers then... had grumbled a bit and said that "but can you not send the invoices electronically then we may not be interested in buying from you anymore". And it sets fire to things."* (GIT Manager)

Almost all of the respondents discussed the external demands that authorities, governments and legal requirements put on the organisation and its different invoice management systems. These external pressures match the description of a *Catalyst* truly well, that make the organisation change in order to continue with its business in the jurisdictions. For example, when governments make it mandatory to do B2G or B2B transactions with only e-invoices:

*"But that is the difference i suppose, the authorities makes demands, and if we cannot abide them, as for example in Italy which have had this for some time towards the authorities, if we cannot send it in this format, then it won't be any business for us."* (GIT Manager)

Old systems for invoice management act as *Catalysts* for change when the VAT function need to track the origin of an invoice and are unable to do so because of the way the system is constructed. This can both be in the control function of monthly VAT declarations, or when authorities perform audits. An example that was brought up during the interview with the local Swedish Team Leader for VAT was a project that had been done in Austria, one of the company's larger European markets:

*"We have had major audits in Austria, twice within five years. That is a very short time span to be audited in the same country… I think it was then that someone said; this must be absolutely right. We have told the authorities that we need to fix things so now we actually have to make sure we do it."* (Local Team Leader VAT)

Sometimes, internal control routines and the annual statutory audit can also demand and create the urgent need for change in the different invoicing processes:

*"It is usually connected to our internal controls and also auditor requirements. So every year we have small changes to improve and secure the process."* (Accountant, O2C)

*Catalyst* are strong advancing forces with one thing in common at the case company; the pressure forcing the change is so strong that business as usual is not an option. A reaction is necessary, forcing an immediate change.

#### 4.2.1.4 Momentum

*Momentum* is the factor required to sustain the change process and maintain the pace of change when *Catalysts*, *Motivators* and *Facilitators* have initiated it. In the process of converting suppliers from sending paper invoices to sending PDF or e-invoices, a valuable resource to maintain *Momentum* was the dedicated person who made the calls to the suppliers. Generally, the task of converting suppliers to electronic invoices is done by P2P function on the side of their main work tasks. In France however, a dedicated person worked proactively with converting suppliers, allowing P2P to focus on their main work tasks. P2P also receives support from the purchasing function as the buyers promote digital invoice conversion in their procurement of goods and services from both new and existing suppliers. The dedicated employee converting suppliers and the help from the purchasing function both added *Momentum* to the already initiated change.

Similar to the dedicated employee converting suppliers, the pilot project for the zero paper project conducted in two countries helped the future project of converting suppliers into using electronic invoicing. Although the pilot was described as "messy", the participants learned a lot from it and were able to use that knowledge in future implementations.

*"You know, the pilot is always a bit messy… But in general, it was a very good lesson, because based on this experience we could go more smoothly for France, very smoothly for Poland and I think for any other scope." (Manager, P2P)*

On a more technical note, the development of an internal e-invoice specification based on the XML-format has helped the *Momentum* of the digitisation of the invoice management. The internal specification simplifies the information exchange between the many different e-invoice formats used by different governments:

*"So it is not certain that it is a 1:1 relationship, that all information that is present in PEPPOL is there in the FatturaPA-format and vice versa. What (Case company) is trying to do with this is an in-house XML specification. We try to have it updated so it takes into account all the different countries format, that its mapping-capabilities will be up to date. And we know that France will have it from 2025 or 2023."* (GIT Manager)

A continuous improvement culture is present in the case company, adding *Momentum* to change processes. Lean was mentioned as a method of continuously improving and increasing efficiency, as well as internal improvement programs:

*"(Case company) is always striving for continuous improvement and I think we do it wherever we can. We have many different programs where we can send our ideas of how to improve some areas of our process overall in (the case company)."* (Senior Accountant 1, P2P)

The bottom-up change coming from and being initiated by the employees at the operational level adds *Momentum* to change processes, especially when coupled with top down decisions managed by the next factor, *Leaders*.

#### 4.2.1.5 Leaders

*Leaders* are, together with *Momentum*, the force that overcomes the barriers to change whenever *Facilitators*, *Motivators* and *Catalysts* have created a potential for change. During several interviews, a certain manager's name came up repeatedly, one even naming him the "father" of digitising and automating the invoice processes in the case organisation. Managers in general were also mentioned as a positive influence, leading change processes and communicating the importance of certain changes, making sure everyone understand why a change is being made.

*"Then we have (the manager), our director, and I think he really was pushing to that solution. I would say this is his success... He is the father."* (Manager P2P)

There was also a discussion around various industry associations, for example the Joint Automotive Industry Forum, which advocate a common invoice specification for the industry that is structured in a specific way. This interest organisation promote collaboration between stakeholders in the industry, and it drives change as it can influence its members, which can be both suppliers and customers to the case organisation, towards e-invoices.

### 4.2.2 Barriers

The suggested barriers that were found in the interview material are presented according to Kasurinen (2002) as *Confusers*, *Frustrators* and *Delayers*. During the coding process of the material we found barriers that were not suitable in the classification presented by Kasurinen. We have classified these as other barriers and will analyse them further in the discussion & conclusion.

#### 4.2.2.1 Confusers

*Confusers* act as a disrupting force for change whenever change processes have ambiguous goals or there is uncertainty regarding the purpose of the change. There is an apparent *Confuser* in the case organisation, mentioned by several interviewees, in the accountability and responsibility of certain processes. Even though the P2P function is responsible for correctly posting VAT on invoices, it is the VAT function that has to fix any issues and make sure that it is correct, should there be an audit. The same is true for the entire invoice process. Even though the VAT function is responsible for making sure the VAT reporting is correct, someone else is responsible for the operational part. Since the VAT function does not own the process, they are left out of the ability to influence its design. Similarly, this separation of process ownership and accountability exists on the sales side, where the businesses are owners of the processes while O2C is responsible for the main operations. In both cases, a proposed change to the process needs to be run through several layers of managers, to eventually reach the owner of the process. Since the owner of the process most often feels like everything is working fine, the separation of process ownership and accountability acts as a *Confuser*:

*"So it is not like we can ask for this and it is done, there has to be involved so many people and so many steps before it actually will be on the planning schedule."* (Accountant 1, O2C)

The costs of implementing e-invoices have to be put against the benefits. Even though the cost for managing invoices might be reduced, IT costs may increase, creating a situation where there is a risk that the benefits of one department is lower than the costs for these benefits in another department:

*"It requires quite a lot of development costs to enable quite small scenarios. You also have to think that "yes you can get the costs down a little further in the supplier account control but in return you get a lot of IT costs", so that kind of discussion you have too."* (GIT Manager)

A similar dilemma acting as a *Confuser* is present in the O2C function. One key metric for the O2C function is the conversion of accounts receivable into cash. This task has become significantly faster once the paper invoices have been converted to PDF invoices. However, the next logical step would be to adopt e-invoices in favour of PDF invoice. But since it only increases the speed of the cash conversion marginally, it is not seen as a priority from the businesses point of view. Several respondents claim that only strong external forces in the form of legal requirements or customer demands are able to force the last step of conversion and the possibility of automation:

*"A little key on the sales side is that you get the money as soon as possible and then it is clear that I think you are positive that invoices are sent in for example PDF. But then moving on to sending them via an electronic format, it is probably only legal requirements that could drive it."* (GIT Manager)

The fact that e-invoices can help the accountants with automation of the accounting process is not in the interest of the business, they primarily focus on the cash conversion. This creates *Confusion* and prevent change from happening in the O2C function.

#### 4.2.2.2 Frustrators

*Frustrators* are factors that generate *Frustration* and suppress change in an organisation. A common theme among the barriers, acting as a *Frustrator*, is the vast size of the organisation coupled with a silo mentality in the case company. The size acts as a suppressor of change since it is hard to contact the correct people once a change is proposed. The silo mentality is strongly connected to the fact that throughout the organisation, several different systems are used for billing and invoice management. The lack of communication between functions also add to the silo mentality:

*"On the P2P side, it was driven a little more by itself, and that is a problem at (case company). It's a lot of silo thinking. P2P runs it own thing, O2C, (Internal invoicing solution) and (Financial controlling and accounting) are running their things. Business areas running their own show on the side and there's not much communication in between."* (GIT Manager)

This has led to the more centralised P2P function being more prepared for the digitisation than the fragmented sale organisation. A digitisation of invoices will be hard for that reason:

*"We suffer a little from this because we have so many different invoicing systems. You never have any system that you have pointed out that "this billing solution should be use in the entire (case company)."* (GIT Manager)

So not only do all businesses have their own invoicing principles, they also have their own system. There are several reasons for this. Parts of the invoicing process cannot be outsourced since it in certain countries is legally required to be situated in that country. The silo mentality results in less than optimal collaboration and communication between the IT function and the businesses, and this is troublesome since IT has to be involved in all change processes where systems are involved. The growth strategy of acquiring companies has also added to the fragmented organisation, since the invoicing systems of acquired companies have not always been consolidated into the existing invoicing systems at the case company. This creates *Frustration* in the case company since all the different systems combined with a silo mentality suppresses the speed of the digitisation of invoice management across the organisation, but particularly in the O2C function.

Whenever goods or services are purchased from a new supplier, there are no requirements to sign agreements over what kind of invoices the supplier can send to the case company:

*"So that's why I think business should be more, or the buyer organisation, should be more involved… … if they come back with business form a new supplier, they should give them two alternatives, either PDF or EDI."* (Senior Accountant 1, P2P)

Since the case company does business with new suppliers on a daily basis, and the new suppliers are able to send paper invoices from the get-go, *Frustration* is created among the accountants who work with converting current suppliers from paper to electronic invoicing.

#### 4.2.2.3 Delayers

*Delayers* are factors *Delaying* a change process. They are of a temporary character and are often a technical issue that can be resolved during the change process. The case company has constructed a web platform for its suppliers where they can manually submit the invoice information. The platform then generates an EDI that is sent to the case company. The purpose of the platform is to allow smaller suppliers lacking an EDI solution to send EDIs. The problem, however, is that the manual input required at the web platform is causing extra work for the suppliers, making them reluctant to use it. Instead, the suppliers prefer to send PDF, which from the case company's standpoint is less preferred than EDIs. The digitisation of invoices, from PDF to EDI, will be *Delayed* for as long as the suppliers find it easier to send PDFs than to manually create EDIs at the web platform:

*"But there are many smaller companies that cannot have this EDI connection or, because it cost extra money or also it's a personal cost for them, because a person has to manually input data."* (Senior Accountant 1, P2P)

The volume of invoices can act as a *Delayer*. Countries with large invoice volumes are more complex in terms of systems and feeder systems, making it more difficult to implement e-invoicing solutions. France and Sweden are mentioned as examples of countries with several systems and several flows for invoices, *Delaying* the digitisation due to the massive IT resources needed to change anything. Paradoxically, very low volumes and/or irregular volumes also acts as *Delayers* to the digitisation process. In Belgium, suppliers invoice the case company once a month, instead of on a transactional basis. The low numbers of invoices received coupled with the high IT and system costs associated with change makes the Belgian part of the case company sceptical to an e-invoice adoption. The incentives are low and the costs will be much greater than the potential benefits:

*"When it comes to the Belgium suppliers… the Belgium business was very sceptical with this... they have some agreement there that their suppliers invoice them once a month... so they said that they don't need it."* (Senior Accountant 1, P2P)

Similarly, for the NAP flow, with lots of suppliers but low and irregular volumes of invoices compared to the AP flow, the incentives for converting to e-invoices are lower. Added to that is the fact that NAP invoices cover a broad range of costs. The whole chart of accounts is used when posting the NAP invoices, meaning that e-invoice automation is harder to achieve from a practical standpoint. The barriers of low incentives and the difficulty to automate are both *Delayers* to the digitisation process:

*"When it comes to NAP flow, e.g. energy or rental or leasing you have the whole chart of accounts which could be adjusted. Like each invoice is different."* (Manager, P2P)

The Covid-19 pandemic that broke out during the start of 2020, is a factor *Delaying* most change processes. With the economic uncertainty that comes from this crisis, investment and budget decisions have been put on hold, where focus is only placed on what is critical and of utmost urgency, *Delaying* the digitisation efforts and changes in invoice management, not only at the case company, but also with customers and suppliers as well:

*"The rest of the company codes, we were supposed to come into phase two in the month of June, July this year, but unfortunately due to the current situation it might get postponed."* (Senior Accountant, O2C)

People's general mindset and opinion towards change is seen as a temporary barrier, a *Delayer*:

*"In the beginning when you talk to people that we are changing from paper to PDF flow and now we are going to have zero paper people are scared. Oh my god, they are changing to zero paper so what am I going to do? This is quite common thinking. But later, when they see that there are advantages of*

*changing and of innovations, they get used to it and they are more open for new solutions and are not scared anymore."* (Manager, P2P)

Employees are used to a solution and initially do not want to change. They act on emotions and form a barrier to change, *Delaying* the change. But once they see the benefits of the change, they are open for new innovations and solutions.

### 4.2.3 Other barriers

The following barriers are based on trends in what interviewees state as phenomena that have a negative effect on change which do not fit under the barrier classifications as proposed in the RACM (Kasurinen, 2002).

#### 4.2.3.1 External counterparts

The most commonly mentioned barrier to change theme, not applicable in Kasurinen's (2002) RACM, is the one we have labelled *External counterparts*. Over and over, it is stated by respondents from both P2P and O2C that the case company is highly dependent on their suppliers and customers willingness to digitise their invoicing. If their *External counterparts* do not wish to or cannot convert, there is often little the case company can do. The reason for this is often tied to smaller sized suppliers or customers with limited financial and labour resources. Another crucial *External counterpart* are the governments in the countries where the case company conduct businesses. The dependency on them is high for different reasons. First of all, one interviewee state that public organisations are harder to convert to digital invoicing when public entities supply the case company:

*"...there are some institutions which do not want to change their behaviour."* (Manager, P2P)

The interviewee speculated in that the reason might be that the public organisations are not so technically advanced:

*"Maybe it is about the technical resources. Some public suppliers, they should be technically high but maybe not all of them are"* (Manager, P2P)

With this technical lag, the process of digitising the invoice process can slow down. The same interviewee also mentioned their energy supplier as an example of a supplier that can use their size to force immediate payment and resist an e-invoice adoption. If the energy provider does not get paid immediately, they will cut the power. This is a problem since they have a monopoly on the supplied resource, and the supply of the resource is crucial to the case company. The case company thus have to accept whatever terms the energy supplier stipulate, creating a barrier to change:

*"When we talk about invoices related to energy, they want money immediately. Because if you do not pay for the energy then they will cut of everything. So they are in a position to, how to say it, not to discuss with them."* (Manager, P2P)

Since all countries in the EU are allowed to run their own formats with their own specifications, the structure of the information has to be translated between formats. The information might not be on a 1:1 ratio between formats as some countries require more information than others on their e-invoices, meaning that the translations is even trickier and the costs might outweigh the benefits, creating a barrier for change:

*"This FatturaPA, it has some local requirements also as they require more information than what may be in PEPPOL. So it may not be a 1:1 ratio that all the information contained in PEPPOL is in FatturaPA format and vice versa."* (GIT Manager)

The way legislation is proposed by governments, another *External counterpart,* can thus create a barrier to change. Sometimes the specifications for e-invoice legislation is unclear, creating uncertainty for the case company. The uncertainty on how to match the IT capabilities of the case company to be compliant with the future regulation creates a barrier to change. Similarly, the EU directive on e-invoices fail to include the exact specification on the structure of information in an invoice, stating only what information an e-invoice should contain.

#### 4.2.3.2 Stable process

The saying, "If it is not broken, don't fix it" is fitting for this barrier. This factor is different from *Delayers* since the ex-ante perspective of the study does not reveal whether the change will eventually happen or not, whereas for *Delayers*, it is evident that the barrier is of a temporary character. In many cases, the respondents claim that everything is working properly in the processes, and that their targets are often exceeding expectations. Therefore, they see no reason to change anything:

*"...when it comes to the Swedish process, I think it has been stable for many years and we haven't really had any issues or any reason to change anything in the process."* (Senior Accountant 1, P2P)

During our interviews, we have come across an invoicing system used by O2C that is, according to the respondents, old, outdated, and not so user friendly. One of the interviewers tells us that: "*It looks like something from space invaders."*. When we discuss this systems with the interviewees familiar with it, all of them agrees that changes to the system should have been done ages ago but that external requirements are the only thing that can force a change:

*"It has been discussed for several years."* (Accountant 1, O2C)

*"But if there are no external requirements, then I imagine they just keep going."* (Local Team Leader VAT)

An example of how outdated the system has become, is that it is not even possible to create PDFs in the system, it can only print physical paper invoices. If the employees want to have the invoices in PDF, it has to be physically printed and then scanned. Another example that could be seen as an advancing force for change mentioned by several interviewees are the difficulties in VAT-registration and its VAT declarations when accessing information from this old invoice system. There are also concerns regarding the efficiency on creating e-invoices in the system now that requirements and regulation for mandatory e-invoices are approaching faster. Although all apparent examples that seemingly push for change are acknowledged, there always seems to be a roadblock present that works as a barrier for change. All interviewees that discuss this systems express a lack of resources, no room for investments and no budget capacity as barriers that are always in the way for any major changes to the system:

*“But the question is how much it is really the priority that can have the positive decision from the budget perspective. Because, improving means investing in that case.”* (Business Process Manager, O2C)

*“The budget has to be done, before the new year, and it has to be there and asked for. It is not calculated in the profit, so I think that is the main reason.”* (Accountant 1, O2C)

*“Because it will take a lot of power and energy to rebuild... It will cost many millions to replace it.”* (Local Team Leader VAT)

The roadblock consisting of a lack of resources and budget restraints is connected to the fact that there is a separation of the process owner and the employees operating the system. As the business owns the process, they bear any costs on changing it, leading to a lower profit. The incentives for investing in a change are thus low. Although the old system is ineffective, from the business perspective, it does deliver what it should:

*“And they think "if it works then why not use it?".”* (Local Team Leader VAT)

A *Stable process* is in the eyes of the business seen as good enough. Since the business own the process, it creates a barrier to change.

A summary of the phenomena having an influence on the change in the case company are presented in Table 2, to visualise and provide an overview of the findings before the discussion. The phenomena are grouped according to which factor they have been classified as, and in which function we have found the phenomena:

**Advancing Forces**

| | *Purchase to Pay* | *Order to Cash* |
|---|---|---|
| *Motivators* | Cost is all that matters to P2P, and lower cost per invoice with e-invoices clearly motivate the use of them | |
| | Second to cost, to pay on time and make supplier happy -> e-invoices increase the delivery accuracy | |
| *Catalysts* | Mandatory e-invoices for B2B transactions would push reluctant to e-invoices unwillingly | Some customers demand e-invoices, or they will go to some competitor. Sets things on fire, act as an external pressure |
| | | Authorities change their regulation to madatory e-invoicing in different transactions. If not followed, no business in that country |
| | | Internal control routines and audits can unexpectedly and quickly demand changes to systems |
| *Facilitators* | A designated EDI-team in the P2P function can help in setting up new connection quickly, facilitating change when it does | |
| | The main part of supplier invoices and the coding of these, can be automated, increasing eifficency | |
| *Leaders* | One specific manager was recognised as a Change agent, associated with the success of the digitisation efforts | |
| | There is an Industry association driving for a common invoice specification in the automotive industry | |
| *Momentum* | Pilot project as a "learning" project has made it easier to continue implement digitisation in invoice management | |
| | The in-house XML format lower the hurdle for digitisation as it becomes simpler to map new EDI connections | |
| | Certain employees in the P2P function are dedicated to "go the extra mile" for converting suppliers | |
| | Company culture and mindset acts as a driving force for change with the aim of continuous improvement | |

**Barriers**

| | *Purchase to Pay* | *Order to Cash* |
|---|---|---|
| *Frustrators* | | A decentralised organisation, with lack of communication and collaboration act as a frustrator |
| | | The different business areas work independently, with low cooperation between, resulting in a silo mentality. |
| *Delayers* | The time and resources a supplier need for using the Web EDI platform can deter use, leading to PDF useage instead | Often, there is no place in the budgets for investments in the invoicing systems, leading to a delay in upgrades |
| | Cost for supplier with low volume might not make it benificial to convert to EDI, delaying the digitisation of the supplier | |
| | Human mindset - employees might be "scared" to changed things, delaying progress | |
| *Confusers* | Depending on system, IT cost could increase very fast, for sometimes only small benefits in efficiency | Almost none of the O2C teams own the invoicing processes, confusing the who makes the call for changes |
| | | O2C is measured on cash conversion. With EDI, the speed of cash conversion only marginally increases as PDFs are "good enough" |
| *Other barriers* | Some large incumbent firms, e.g. public utility companies, might not have the technical capabilities to send e-invoices | Case company cannot force digital invoices on customers, and they rather send paper invoices than lose the customer |
| | Unclear regulation can put uncertainty into when and where change has to happen, stopping change until the last second | When the business owns the process, and do not realise the issues with paper invoices, they say: "Why change something that works?" |

*Table 2: Summary of each phenomena connected to a factor*

## 5. Discussion

Our conducted case study reveals that the case company is exposed to all of the factors described in the RACM (Kasurinen, 2002). Evidence for both advancing forces and barriers for management accounting change were found to be present in the accounting functions examined in the study. The phenomena found to impact the change process in the digitisation of the management accounting can be explained using findings and conclusions from prior literature in the MAC field. The themes that we discuss are External forces, Dependency on counterparts, Leaders for change and Organisational structure.

Solid evidence for advancing forces being more prevalent in the P2P function of the case organisation is presented in Table 2. Regarding the presence of barriers, the evidence suggests that there are more barriers in the O2C function, and the barriers are more dominant in this function of the case organisation. The evidence is confirmed by the respondents in the study, stating that the P2P function is far more digitised in their invoice management process than O2C.

### 5.1 External forces

We set out with the aim to investigate the trends in electronic invoicing, based on three arguments that should create enough pressure on a multinational organisation's invoice management for e-invoice adoption. The three arguments were: The legal push the EU Commission has taken in their goal of a single digital market and the different member states adoption of e-invoices regulation, the efficiency gains associated with e-invoices and the new technical advancement that have allowed tax agencies to explore new solutions with mandatory e-invoices as the base to collect tax information. We have seen that these pressures have had an impact on the studied organisation. However, the impacting forces are not evenly distributed between the studied functions. Uneven distribution of change has been studied by Lukka (2007), finding that different controlling units are unevenly affected by standardisation attempts, concluding that stability and change can exist simultaneously in an organisation. The forces for change in our case, the two external ones of a regulatory nature, and the efficiency gains from adopting e-invoicing have worked as advancing forces for the P2P function. While on the O2C side, only the external ones have had an impact, advancing the digitisation process. This is largely due to O2C being exposed to mandatory e-invoicing regulation in public procurements since the case company are more engaged in B2G sales than B2G purchases. However, the forces have had a bigger impact on the P2P function due to the efficiency gain perspective being applicable there. Respondents have pointed out that certain markets have made changes in response to new invoicing directives from the EU. The observation supports the idea of the *Catalyst*, proposed by the RACM (Kasurinen, 2002), where the new regulation work as an advancing force for change, mainly on the O2C function. It is also in line with Järvenpää (2009), observing that coercive external pressure can force an organisation to change. Similar to our findings, one of the observed companies had their accounting function focusing on being compliant with the new regulatory requirements (Järvenpää, 2009). The observed phenomena of external pressure can also work as a barrier to change. For both P2P and O2C, the sometimes unclear and changing directives create an uncertainty that delays change. This has been observed in prior literature by Van der Steen (2009). Van der Steen (2009) argue that ambiguity in the change process as a result of incompatible routines and new rules create inertia, suppressing change. To change a process, managers, IT department, process owners and the operators of the process all need to collaborate and have their say. In other words, a lot of resources need to be engaged and their interests need to coincide for change to happen (Burns & Vaivio, 2001). If the functions do not know what they have to change to be compliant, they will wait with the change. The uncertainty originating in the Covid-19 pandemic, as expressed by several respondents, has led to a similar barrier in the sense that the functions, customers and suppliers do not know how to react. When no one knows what to do, change processes are halted and put on hold, resulting in what Kasurinen (2002) calls a *Delayer*. Paradoxically, the situation has also visualised weaknesses in the different invoicing processes, such as in the case when someone has to be at the office during quarantine in a pandemic to physically print and scan the invoices, that might be severe enough to force a too hasty change, acting as a *Catalyst* (Kasurinen, 2002).

## 5.2 Dependency on counterparts

Beyond the external forces for change of regulatory origin, two other external forces have been noted by the respondents. One is smaller suppliers with a lack of will to convert to e-invoices. The other is various customers that threaten to cease doing business with the case company if they cannot send e-invoices, which then set fire to things. Just as in the case of the external regulatory forces, the case company is again dependent on its counterparts to be able to initiate change, as small suppliers act as a barrier and customer demands acts as an advancing force. The customers threatening the case company forces a speedy change in the O2C function, acting as a *Catalyst* (Kasurinen, 2002). Although the small suppliers are being a barrier to change for the case company, the phenomena do not perfectly match any of the proposed barriers in the RACM (Kasurinen, 2002). Drawing from other literature in the field of MAC, the apparent lack of will to change shown by small suppliers is more in line with the conclusion made by Parker (2012). Parker (2012) states that organisations might not change its processes, even though external pressures are strong. In our case, this arise from both legal regulations on the supplier and the case company, often the biggest customer of the supplier pushing for change. But since there exists a complex interrelationship at the supplier between the external pressure and internal forces, e.g. high costs for e-invoice implementation, change might be suppressed by the internal factors. The lack of change can also be explained by inertia. When new rules are imposed, in this case, the legal regulations as well as the demands from the case company, they are incompatible to the existing routines, sending paper invoices, resulting in ambiguity suppressing the change (Van der Steen, 2009).

## 5.3 Leaders for change

We found evidence for managers and leaders acting as advancing forces of change, in line with the factor *Leaders* as presented by Kasurinen (2002). The *Leader*, originally described by Cobb et al. (1995) as the key individual who needs to overcome the barriers of change when *Catalysts*, *Motivators* and *Facilitators* are present, was found in the case company. Several respondents, independent of each other, mentioned the same manager as a *Leader* for change. The description of individuals as *Leaders* in the RACM is however not very nuanced. Burns and Vaivio (2001) provide a more complex description of the role of managers and other leader-like stakeholders. According to Burns and Vaivio (2001), this certain individual is seen as a clear proponent for change. Further in line with their findings, we found evidence for both top-down and bottom-up approaches to change. Managers have to be involved in or approve most changes, pushing change down in the organisation, as expressed by several accountants. The logic of the change is mostly managed and formal, as the change is actively managed according to a plan set by higher executives. The different power levels among stakeholders are obvious in the relationship between O2C and the business when the business have the power to refuse the proposal for change. The self-interest of the managers is superior to the change wanted by the accountants, resulting in a barrier to change due to inertia, as described by Van der Steen (2009). We also found evidence where interests coincide rather than collide, as exemplified in the case when both P2P and the VAT function push for a change towards e-invoices (Burns & Vaivio, 2001). We also found evidence of local leaders advocating for change in their local scope, as in the case of the continuous improvement initiatives in one of the local functions, implying a bottom up approach to change (ibid.). This kind of change, where the collective mindset is set on change needing to happen, has been described by Scapens (2006) and Burns and Vaivio (2001) as evolutionary. This evolutionary kind of change was however much less prevalent in the case company.

## 5.4 Organisational structure

It is interesting to note the effect the case company's organisational structure have on changes, or lack of changes, when it comes to the digitisation process of invoice management in the studied functions. On one side of the organisation (P2P), we have observed a centralised structure with scopes that only depend on country or region, where there is both strength and power in the *Momentum* of the digitisation process. As Ansari and Bell (2009) notes, the organisation's members, in our case the employees in the P2P function, play an important and valuable role in the communication of a change process, as well as the actual enactment of the change. We see a clear collaboration between respondents in the change process through the zero paper invoicing project, even though they work within different scopes in the P2P function. We can also connect this to the RACM (Kasurinen, 2002) and the *Momentum* factor. As the project was applied to more scopes, the mistakes and errors from earlier project were evaluated which improved each new project implementation. Then, dedicated employees also helped speed up the change process with a strive for continuous improvements.

On the other side of the organisation (O2C), we have observed a fragmented and decentralised accounting function, in which each business area and their respective markets acts independently from each other, labelled as silo thinking by one respondent. Coupled with this fragmentation, the O2C function does not own the invoice process, which concurs well with the result of Kasurinen (2002), and the *Confuser* factor. As the employees working in the accounting function manage everything with the invoices, except for the creation of the actual invoice, there are conflicting interests between the accounting function and the businesses. The accounting function wants to change the invoice management systems, while the businesses see their different invoice systems as "good enough". This has been observed in prior literature by Siti-Nabina and Scapens (2005), who found that conflict between organisational groups' different interests are a source for resistance to change. It is also similar to the findings by Järvenpää (2009), where one of the analysed companies resisted the external pressure for change since "unnecessary changes should be avoided" (Järvenpää 2009, p. 462). The interpretation of the responses provides us with a clear root cause for the conflict between the organisational groups. The conflict can largely be traced to the different goals and key performance indicators (KPIs) between the O2C function and the different businesses. One of main KPIs that O2C is measured on, is cash conversion. As many outgoing invoices have switched from paper to PDF, the cash conversion metric is on a level good enough to be acceptable by the business. Even though a change to e-invoices could increase this, it would only be marginally improved, suggesting that, in isolation, the cost would be higher than the benefits. In addition to this, the main KPI for the different businesses is usually linked to the profit and loss of that unit. In most cases, an investment or budget decision in a digitisation change process would affect this KPI, and the business would be very reluctant to go forward with this type of investment as the benefits would mostly be seen in the accounting function, and not in the business itself. This suggest that our results are consistent with previous results presented by Van der Steen (2009), in that it could be a source of inertia, where the perceived self-interest of the managers in the business conflicts with the intended or possible change in invoice digitisation. This could also be theorised according to Burns and Vaivio (2001) as a stable process lacking change, rather than actual change when analysing the epistemology of the change. This root cause of wanting to enhance the KPIs works the other way around for P2P, where they are measured on cost and always strive for a decreasing cost base. A P2P manager has done a good job whenever the cost is kept low and the efficiency of the manager's team is increased. Therefore, the digitisation to e-invoices, resulting in lower costs per managed invoice, is perfectly in line with the objective of the managers, leading to P2P being more digitised in their invoice management. Stability and change are not to be seen as mutually exclusive, and the fact that P2P has seen quite a lot of change while O2C has been stable is well in line with prior studies on the interplay between stability and change (Burns & Vaivio, 2001; Granlund, 2001; Lukka, 2007; and Scapens, 2006). The findings further strengthen the importance of studying the interplay between change and stability in organisations, not just one of the directions of a change.

The result from the study suggests that the factors proposed by the RACM (Kasurinen, 2002) can predict the effect of a phenomena on a change process in the invoice management processes within the case company. The predicted effect can also prevent a change from happening, i.e. be a barrier to change. Furthermore, we suggest that the RACM is sufficient as a framework for a factor study on invoice management as a MAC process. As we have applied the model on another management accounting system, the invoice management system of the case company, and that it generates similar results as for Kasurinen (2002), these results add to the validity of the RACM. In conjunction with this, other theories have been drawn from the field of MAC literature to certify the forces for and against change, and to support the findings classified according to the RACM: Ansari & Bell (2009); Burns & Vaivio (2001); Granlund (2001); Järvenpää (2009); Lukka (2007); Parker (2012); Scapens (2006); Siti-Nabina & Scapens (2005) and Van der Steen (2009).

# 6. Conclusion

In this paper we have investigated the following:

*What forces for and against change exist in the functions managing invoices in the organisation? How and why do these forces impact change in the invoice management at the case company?*

We see that external pressures act as forces both for and against change in the organisation. A dependency on counterparts act as a force against change, since the case company must comply to the wishes of the counterparts of the case company. Leaders for change act as a force for change. Finally, the organisational structure of the case company is a force both for and against change in the studied functions managing the invoices. The external pressures, leaders for change and the organisational structure drive progress through efficiency gains and automation in the invoice management in the P2P function. The evidence suggests the centralised organisational structure as well as the aligned incentives of the managers and the employees are the main reasons why. The dependency on counterparts and the organisational structure delay and hinder change in the O2C function. The highly decentralised organisational structure and the misaligned incentives of managers and employees at the O2C functions are the main reasons why these forces have a negative impact on the change process.

In more general terms, the study has led us to conclude that there are multiple forces for and against change existing in the studied case organisation. There are both advancing forces and barriers to change present in the functions managing invoices that assist and prevent change in the digitisation of the invoice management practices. The same force can be both for and against change, depending on where in the case company it is applied. This is due to the very different characteristics of the studied functions. We also see that parts of the organisation do not change, even though they are under apparent pressure for change from multiple sources. This suggests that executives need to reflect on the structure of the organisation before changes to the management accounting processes are underway. Taken together, these results suggest that Kasurinen's RACM (2002) can be applied to other MAC practices, not only BSC implementation. Furthermore, the results demonstrate how Kasurinen's factor study can be used ex-ante a change process to investigate the conditions for a change. Additionally, we found phenomena that could not be classified by the factors in the RACM (Kasurinen, 2002). These phenomena could be explained using related literature in the field of MAC, where inertia and the competing incentives of managers, through the examples of KPIs and sometimes lack of resources in the studied functions, acts as explanatory phenomena for a proposed factor. This factor could, after some further research, eventually be added to the Revised accounting change model.

We contribute in the research area of MAC by providing further evidence to the applicability of the RACM as it is proposed by Kasurinen (2002), by showing its usage on another management accounting practice, invoice management, as well as the possibility to use it in an ex-ante perspective. We also contribute to the field of MAC by showing the effects of complex organisational structures, where different individuals and processes work in multiple directions. We show that these forces for or against change are part of the complex organisational reality surrounding digitisation efforts in practice. As development and adoption of new invoicing techniques are accelerating, it is becoming increasingly relevant to conduct research like ours to provide insights in this changing management accounting area. The findings add to the vast body of literature on management accounting change, and the factors that influence changes in MA practice. The findings can be used by other multinational organisations with similar organisational challenges as the case company when implementing MA-tools. The findings can also be helpful to project managers and consultants working with MAC projects.

As a first step in future research, we propose a more thorough longitudinal case study in a similar organisation, were deeper insights into the different phenomena that can alter or hinder change in the chosen organisations invoice management can be studied. The phenomena that did not fit into the factor model of Kasurinen (2002), inertia and incentives, could possibly find its way into the model. Further studies focusing on the odd factor will determine if the evidence for the phenomena are strong enough. Following that, a multiple case study could be performed, investigating the generalisability of the results in our study.

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## Appendix A

# Part 1

**Role description**

What do you do at work?
What part of your work relates to invoice management?
What are your specific responsibilities when it comes to invoicing? Are you the process owner of anything?
Do you have contact with suppliers or customers?
What type of supplier/customer, private or public?
What region or country do you work with?
Do you manage different type of invoice for different products? AP or NAP flow or both?
Do the invoices have different types of payment terms?

**Information flow**

In your tasks relating to invoices, what information is needed?
From whom do you get this information, do you need to ask/collect it yourself, or is it delivered to you?
Whenever you are finished with your invoice interaction, where do you sent the information?
- Internal or external recipient?
- To managers or subordinates?

Whenever you are finished with the invoice interaction, does the invoice ever need your attention again? Or are you done with it forever?

# Part 2

**E-invoices**

Do you have any professional/work experience with e-invoices?
What is your opinion on e-invoices?
Would you like to work (more) with e-invoices?
Does your department/organisation work with e-invoices? Should it? Is it ready for it?
Do you believe that the whole group should/could use e-invoicing?

**Systems**

Do you work in a single or multiple invoice management systems?
What is your opinion on the current invoice management system?
- What are the pros and cons with the system?

Do you ever reflect on the connection between the invoice management and accounting?
- If yes, what reflections do you have?

**Opinion towards change - Previous experience with change.**

Has there been any change related to invoice management in your department/organisation recently?
- Why? Why not?
- If yes, are digital tools a part of the improvement?
- If no, could digital tools help in the development?
- How did/would it affect you and your work?

What is your opinion on the change/the current process?

**Advancing forces of change**

Do you feel like your department/organisation is in development is striving for improvement?

If yes, continue with questions on advancing forces.

- What makes this development happen? How?
- Any drivers, factors for this process? How?
- Can it be both internal and external forces?
- Is there anyone driving this change? Who? How?
- Can there be something that is holding it back?

If no, continue with questions on barriers.

- Why is that?
- What factors can be the cause for this?
- Internal and external factors?
- If you had more resources, could you improve/develop? What resources? How?
- Even if there is no development, is there someone/something driving for change?
- Is there someone/something driving for status quo?

***If the respondent had experience from the zero paper invoicing project, these question were also asked***

Why was the project started?

Who initiated it? At what level?

Have you encountered any problems so far in the project?

Are there any obstacles in the process?

What is the opinion on the project from the supplier's view?

What is your opinion on the project?

Will it be possible to get rid of all paper invoices?

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