FACULTY OF ECONOMICS AND BUSINESS ADMINISTRATION

DETECTION OF CUSTOMER CHURN SIGNALS

HOW KEY ACCOUNT MANAGERS DETECT SIGNALS OF CHURN IN PRACTICE

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Management summary

The master dissertation focused on the detection of churn signals within the field of key account management. Key account managers are individuals who maintain the relationships with key accounts, clients that have been deemed essential to an organization (McDonald et al., 1997). According to the Pareto-rule, 80% of organizational revenues result from transactions with 20% of customers (Weinstein, 2002). At the same time, it is five times more costly to acquire a new customer than to retain an existing one (Lazarov & Capota, 2017). Therefore, it is crucial for organizations to retain their key accounts, which account for a large part of the organization's revenue and are more costly to replace than to retain. Resources can be saved when key account managers are able to detect potential churners and focus on them directly, compared to when they apply a shotgun approach (Jahromi, Stakhovych, & Ewing, 2014). Three research questions were considered: 1) What churn reasons do KAMs perceive within their client portfolio? Are these reasons found directly within the supplier-buyer relationships or are there external reasons that KAMs believe drive their clients to churn? 2) What signals signify potential churn for a KAM? and 3) What methods do KAMs use to aid them in the detection of these signals?

Due to the complex nature of the churn phenomenon, it was decided that a qualitative research design would be most suitable to find answers to these questions. Fifteen in-depth, semi-structured interviews with key account managers or individuals in similar positions were conducted. This interviewing technique was chosen since it allows researchers to explore facets that were left unconsidered during the initial stages of research (Hollmann et al., 2015). The respondents were gathered through the snowball technique, a convenience sampling technique that used the researcher's network to acquire respondents.

The interviews revealed that the respondents mainly picked up churn signals through the networks that they cultivated or by analyzing the environment. Mainly changes to the buyer were mentioned as signals of oncoming defection. Changes in the larger environment, to competitors, and even within the supplier organization could also signal that churn is imminent. On the other hand, churn signals were often detected through direct interaction with the client. Through the creation of personal relationships and networks within the larger buyer-supplier relationship key account managers form bonds with several individuals within the customer that allow them to detect churn signals. By allowing for open, honest, and transparent communication through the creation of these relationships, key account managers can detect churn signals at the source and through direct interaction. Relationship management was preferred over more objective techniques such as surveys and prediction models.

One avenue for future research is to consider whether the use of statistical prediction models, which has been the main focus of churn literature in the past two decades, or other objective measures are more effective to detect churn intention in key accounts compared to the relational techniques currently applied by key account managers. If this is the case, researching nudges that increase tool usage among key account managers could be a useful follow-up study.

Preface

This master's dissertation is the final step in my studies and was written to obtain my degree in Business Economics with a specialization in marketing. I would like to thank a few people who have helped me through the past few months.

First and foremost, I would like to thank the respondents who participated in the interviews and the people that put me in contact with potential respondents. Without the interviewees and my contacts, this research would not have been possible. The respondent not only provided valuable insights, but many also showed me the relevance and practical value of this master dissertation through the interest they expressed in the topic.

Secondly, I would like to thank Prof. Paesbrugghe for his support throughout the process.

Lastly, I would like to express my gratitude toward my family, friends, and boyfriend. All of them helped me through my doubts and worries. They listened to my complaints and helped me see the bright sight. Special thanks to my family for helping me kickstart my research and to my friends who went through the process with me and lightened my mood by sharing their problems. Much appreciation to everyone that supported me through this process.

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Abbreviations

AI: Artificial Intelligence
ANN: Artificial Neural Networks
B2B: Business to Business
B2C: Business to Consumer
CLV: Customer Lifetime Value
CRM: Customer Relationship Management
CSM: Customer satisfaction measurement
DMU: Decision Making Unit
DT: Decision Trees
GIGO: Garbage In, Garbage Out
HR: Human relations
IoT: Internet of Things
IT: Information Technology
KAM: Key Account Management
KAMs: Key Account Managers
KPI: Key Performance Indicator
M&A: Mergers & acquisitions
NPS: Net Promotor Score
SLA: Service Level Agreement
SVM: Support Vector Machines

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Introduction

In B2B marketing an increased focus has been placed on the retention of customers, in part through relationship management. Much research has been done on techniques that aid practitioners while determining which customers should be targeted with retention efforts. Since marketing budgets are limited, the retention efforts should be as cost-effective and efficient as possible. There is no consensus in the current literature on how to use these retention budgets most effectively. The focus of this master's dissertation is on discovering which of the numerous techniques available within the literature are used in practice by key account managers to determine which customers are at risk for defection. At the same time, the defection reason should be considered, since this will influence potential retention actions. Signals that point to inevitable defection reasons should lead key account managers to focus on replacement instead of retention. The research questions that will be considered are as follows: 1) What churn reasons do KAMs perceive within their client portfolio? Are these reasons found directly within the supplier-buyer relationships or are there external reasons that KAMs believe drive their clients to churn? 2) What signals signify potential churn for a KAM? and 3) What methods do KAMs use to aid them in the detection of these signals? In the literature review, the propositions focus on the methods of churn detection since churn reasons and signals are more numerous than detection methods and oftentimes context-dependent.

Two sayings within retention literature highlight the importance of this research. The first states that it costs five times more to acquire a new customer than to retain an existing one (Hung, Yen & Wang, 2006; Lazarov & Capota, 2017). B2B organizations find themselves in an increasingly competitive environment which makes both retention and acquisition burdensome. It is therefore crucial that a large number of customers are retained effectively. However, not all customers are worth retaining. The second saying states that 80% of revenues result from transactions with 20% of customers (Weinstein, 2002). Within the other 80% of customers, many are therefore unprofitable or only slightly profitable. Retaining the 20% of customers who are responsible for 80% of the revenue is crucial when trying to maintain the profitability of an organization. However, an untargeted shotgun approach might be undesirable, even within key account management. While key accounts usually get special attention, key account managers should be able to identify when an account is at risk to more proactively steer the customer towards retention. Supplier complacency is a risk that results from the previous effort that was put into the relationship between a key account manager and a key account. To prevent this complacency, key account managers should have systems in place that alert them to changes or behavior that might signal defection intentions.

At the start of this research, the focus was mainly on churn prediction models and uplift modeling. An analysis of these two streams of research showed that there is much disagreement about which statistical models are best used to improve retention. This research sidesteps one of the main points of contention which is who should be targeted by focusing on key accounts, which are clients that the organization presumable wishes to retain. Nevertheless, the wide breadth of prediction and uplift models also shows that there is a wide array of techniques available to key account managers who

wish to detect at-risk customers. A wide array of statistical models is put against each other within numerous studies, and fairly little consensus exists about which of these models is the most effective. This might lead one to wonder whether practitioners can effectively make use of these complex models when such a variety is available and no consensus on effectiveness has been reached.

Churn prediction models and uplift models use variables to determine the chance that a customer might churn and a customer's responsiveness to retention offers, respectively. A wide variety of variables can be used in these models. Some of the variables might also be used to measure concepts such as loyalty and satisfaction. These concepts can be used by practitioners to determine the likelihood that a customer will churn, without the use of complex statistical models. Loyalty measures such as the NPS have been used in marketing for years. The relationship between loyalty and satisfaction has been thoroughly researched as well. Nevertheless, it might be interesting to consider which of these concepts are used by Key account managers in practice and how they see the relationship between them.

Churning intentions might also be influenced by factors outside of the buyer-seller relationship. Macroeconomic changes, shifts within the industry, and other changes to the external environment of customers might influence their intention to defect. A client who is part of a shrinking industry or who is hit by increasing interest and trade agreements might terminate the relationship with the supplier, even if they are loyal and satisfied. Changes in the competitive environment such as decreased switching barriers and increased competition might allow customers to switch more easily as well. Besides the changes in the macro-environment, a client organization will also be faced with internal changes. Changes in leadership, mergers & acquisitions, and a fired point of contact, are just some of the changes within an organization that might lead them to reconsider their current relationships. Keeping an eye on the internal and external environments of customer organizations could be a valuable tool while trying to predict a customer's propensity to churn. Besides the internal and external environments of the customers, it might also be interesting for key account managers to keep an eye on changes within their own organization that might be perceived negatively by customers.

Key account management is a subsection of relationship management. Churn detection is oftentimes about assessing the current state of the buyer-supplier relationship. However, the personal connection between a key account manager and their contacts can also be used as a tool to detect this deterioration. These personal connections are a less formal method that is more subjective in nature.

There are many different tools available for key account managers that wish to determine the state of their relationship with clients and the chance that a specific client wants to churn. These tools might be used independently, together, or not-at-all. Certain key account managers use their intuition to detect customers that are planning to churn, without using any formal methods or techniques. Through in-depth interviews, this master's dissertation will attempt to uncover which

methods are used in practice, what churn signals are perceived, and what churn reasons lie behind those signals.

1. Literature Review

1.1. Introduction

In an increasingly complex world organizations are trying to maintain and/or increase their revenue. They have two ways to attain this goal, either through the acquisition of new customers or the retention of existing ones. Acquisition, however, is far more expensive than retention, about five times more expensive (Khan, Manoj, Singh, & Blumenstock, 2015; Slater & Narver, 2000). These acquisition costs are also continuing to rise due to the rising competitiveness within business environments (Chen, Hu, & Hsieh, 2015), this leads B2B organizations that wish to remain profitable, to focus more on retention activities. This rising competitiveness is, in part, the result of the increased access to information that allows customers to switch more easily between suppliers (Gordini & Veglio, 2017). The issue of retention is more salient in B2B environments, where a smaller number of customers is responsible for larger, more frequent purchases (Rauyruen & Miller, 2007). Customer retention is the basis for the creation of business relationships (Gordini & Veglio, 2017) and creating a loyal customer base is important because the transaction period with loyal customers is usually longer and they are more inclined to ignore the offers of competitors (Jahromi, Stakhovych, & Ewing, 2014). While churning has become easier due to the growth of e-commerce (Gordini & Veglio, 2017), the ROI for acquisition strategies is usually lower than those of retention strategies (Jahromi et al., 2014). It is therefore crucial that B2B organizations try to effectively maintain current business relationships to maintain profits. Existing customer relationships also allow for the option to cross-sell and upsell.

This shift from a transactional perspective to a relationship-focused one can be seen throughout the field of B2B marketing (Wiersema, 2013). Forming relationships with current customers can provide several advantages in the long term. Loyal customers can provide positive word of mouth, are less responsive to offers from competitors, and are cheaper to serve since the organization is more knowledgeable about their desires and requirements (Gordini & Veglio, 2017). The concepts of retention and relationship are heavily intertwined in the literature. Chen et al. (2015) state that “customer retention is the ultimate goal of customer relationship management", while Jahromi et al. (2014) write that “customer retention is considered central to developing business relationships”. Organizations form relationships with customers to retain them and the information that the organization acquires through the relationship allows them to make more personalized offers that keep customers invested in the relationship. Relationships can not only provide advantages on a local level but also globally, by allowing for a uniform standard and economies of scale (McDonald, Millman, & Rogers, 1997).

Vafeiadis, Diamantaras, Sarigiannidis, & Chatzisavvas (2015) define customer relationship management (CRM) as a strategy to create, manage and strengthen long-term customer relationships with loyal customers. This can be achieved through personalized marketing efforts (Munnia, Nicotra, & Romano, 2020). Several researchers have examined how relationships influence loyalty in B2B settings. A study by Rauyruen & Miller (2007) examined the effect of relationship quality

on customer loyalty and Gil-Saura, Frasquet-Deltoro, & Cervera-Taulet (2009) studied the relationship between relationship value and loyalty. Both found that relationships influence behavioral loyalty, which is the intention to purchase.

1.2. Key account management

Key account management (KAM) is the result of this increased focus on relationships in B2B markets (McDonald et al., 1997). The goal of KAM is to create a loyal base of key accounts through individualized offerings that move the key accounts towards higher relationship levels over time, moving from a transactional relationship to a collaborative one. KAM can be seen as a subset of relationship marketing (Kumar, Sharma, & Salo, 2019) that focuses specifically on the creation of long-term relationships with critical customers that provide a competitive advantage. Key accounts receive special treatment not only from a marketing point of view but also administratively and service-wise (Ojasalo, 2004). Hassle factors are reduced by streamlining interactions to create synergy (McDonald et al., 1997). There are four areas in the KAM approach (Ojasalo, 2004). First, the key accounts have to be identified. Secondly, the key accounts have to be analyzed. Thirdly, strategies for key account management have to be created. Lastly, the organization has to internalize capabilities that will allow them to create the desired relationships. Key accounts are so crucial to organizations that dedicated teams with key account managers have been created. Like normal relationships, the relationship with key accounts evolves over time. As time progresses the relationship becomes more complicated while it becomes more collaborative. At the highest levels of partnership, the company boundaries may even become blurred as the organizations work together to co-create value (McDonald et al., 1997). KAM relationships are not only about collaboration but also about conflict resolution (Kumar et al., 2019). The shift towards networks that can be seen in wider marketing literature is also present within the literature on KAM (Ojasalo, 2004; Kumar et al., 2019). In the section on how networks can be used as tools for churn signal detection, this concept will be explained further.

Hocutt's (1998) relationship dissolution model shown below highlights how relationship management by KAMs can contribute to the retention of a key account, especially when linked to the dimensions of KAM by Ryals (2007). Hocutt's model, which is shown below, shows the antecedents to relational commitment which is linked to defection likelihood. Ryals' (2007) dimensions of KAM relationships are distinct from non-KAM relationships. These five, according to him distinct dimensions are: 1) Communication, 2) Relationship stability, 3) Trust, and 4) Flexibility. These dimensions can be linked to the general relationship dissolution model. With duration being linked to relationship stability and flexibility being linked to investment in the relationship. This could lead one to believe that the actions specific to key account management are vital to the creation of relational commitment. It should be noted that communication in KAM relationships is not just between the KAM and a contact person, it is comprised of the communication of multiple individuals within the two organizations. This communication can appear at several levels within both organizations and across different departments.

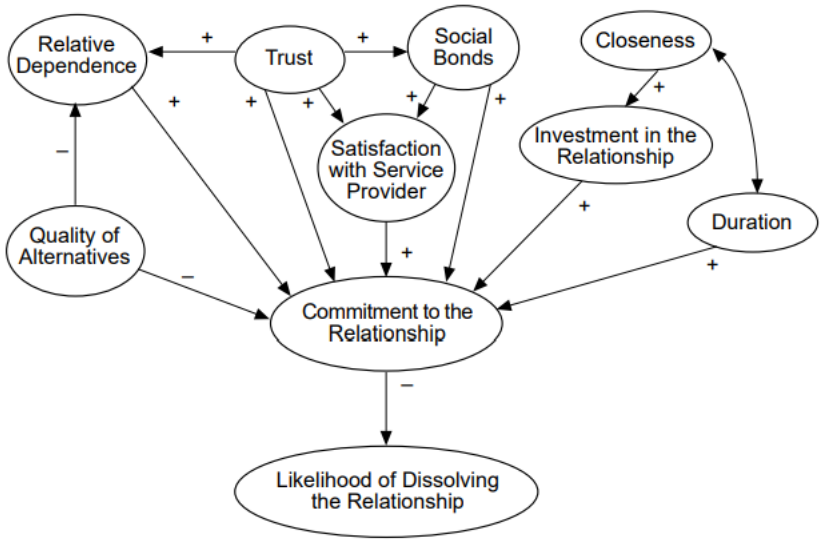

Figure 1: Relationship dissolution model. Reprinted from "Relationship Dissolution model: antecedents of relationship commitment and the likelihood of dissolving a relationship," by M.A. Hocutt, 1998, International Journal of service industry management. Vol.9 No2, pp.189-200. Copyright 1998 by the MCB University Press.

The model above also showcases that certain dissatisfied customers might remain with the incumbent supplier, nonetheless. White & Yanamandram (2007) write that this is the result of certain factors, which they denote as switching barriers, which prevent a dissatisfied customer from churning. These factors are 1) Interpersonal relationships, 2) Switching costs, 3) Service recovery, 4) Availability and attractiveness of alternatives, and 5) Inertia. KAMs can influence the first three barriers. They can build, strengthen, and maintain interpersonal relationships, they can increase switching costs by increasing inter-organizational dependency through cross-sell and upsell and they can ensure that service recovery happens swiftly by responding to problems and resolving them. In literature, numerous models can be found that explain the antecedents of customer churn and the actions that can be taken to prevent or discourage it. This leads to a large number of elements that need to be considered by KAMs, many of which will be beyond their control.

Multiple contemporary information sources, like the IoT, have given organizations access to enormous amounts of structured and unstructured data. In B2B settings, Big Data is not as commonplace as in B2C settings, in part due to the larger data sets available in the latter setting where larger numbers of customers are involved with the focal organization (Jahromi et al., 2014). In key account management, an even smaller subset of the customer base is considered. However, even when substantial amounts of data are available, it is often still underused (Gordini & Veglio, 2017). Therefore, many organizations could optimize their decision-making through the use of big data. To harness the power of big data, organizations need to collect and analyze this data to create visualizations and applications (Munnia et al., 2020; Zdravevski, Lameski, Apanowicz, & Ślęzak, 2020). Big data allows organizations to work in a more targeted method using classifications created with vast amounts of customer data. The creation of prediction models and uplift models has been made possible through the rise of big data. At the same time techniques such as sentiment analysis

can also be used to detect shifts within client sentiment. Marketing managers can now count on the power of data instead of just heuristics while attempting to retain customers.

1.3. Defining customer churn

Before we can consider how key account managers attempt to identify potential churners, we need to define customer churn or customer attrition. In this literature review, customer churn is seen as the antonym of customer retention. According to Rothenbuehler, Runge, Garcin, & Faltings (2015), the relationship that an organization has with its customers dictates its definition of churn. When customer churn is defined in the literature, a distinction is often made based on the contractual or non-contractual nature of the relationship. Many studies on customer churn prediction within B2C relationships focus on contractual relationships (Gattermann-Itschert & Thonemann, 2021), while many B2B studies have focused on non-contractual relationships (De Caigny, Coussement, Verbeke, Idbenjra, & Phan, 2021). It is easier to define customer churn when the relationship between an organization and its customers is contractual, in comparison to non-contractual relationships. In contractual relationships, the exact moment of churn can be pinpointed as this is the moment when the customer ends its contracts with the organization. In non-contractual settings, it is harder to determine when churn occurs, which can create difficulties for service organizations that want to use their retention program to prevent churn after several service failures (Jahromi et al., 2014). In the case of non-contractual relationships, customer churn is usually defined as customers refraining from transacting with the focal firm for a certain period (Gordini & Veglio, 2017).

While this definition of customer churn - as a customer being inactive during a given time period - was applied in multiple studies (Gordini & Veglio, 2017; Jahromi et al., 2014; Yu, Guo, Guo, & Huang, 2011), there are other definitions. Chen et al. (2015) specify in their study that they only consider customers who create a new relationship with another organization and cease their relationship with the focal firm as churners. While they included other reasons that would lead to the loss of customers, they only focused on switchers while determining churn, because only switchers could be addressed with retention actions. Certain studies define churners as customers who are becoming less loyal. This could be seen as a broader definition of churn since it also includes the time before the churner fully ends their transactions with the organization (Glady, Baesens, & Croux, 2009). To do this, loyalty has to be expressed in monetary amounts. In some studies, this means that a customer is considered to be a churner when their monetary activity falls below a fixed threshold, while others consider a significant decrease in customer lifetime value (CLV) (Glady et al., 2009). More recent studies do not consider changes in monetary amounts to be a definition of churn, instead, it is seen as a potential predicting variable (Jahromi et al., 2014). Gattermann-Itschert & Thonemann (2021) consider partial churn to be “the substantial decrease in purchase volumes”, which could be considered a predictor of churn. The study of Gatterman-Itschert & Thonemann (2021) also highlights that the definition of churn used in research is company-specific. While studying churn in practice, the company-specific definition might be more important

than a general definition agreed upon in the literature since retention activity will be dependent on the organization's perception of churn.

Another churn classification method is based on the deciding force behind the churn (Hadden, Tiwari, Roy & Ruta; 2005). Voluntary churn is initiated by the customer, while involuntary churn is caused by the supplier. Voluntary churn is further split up into two categories. Category one contains the incidental churners, clients who through changing circumstances no longer require the service or product offered. These clients do not switch to a competitor as they no longer require the service/ product or are unable to provide payment. Deliberate churners move their business with a competitor of their own volition. In a similar vein, there is the classification of controllable versus uncontrollable churn. Uncontrollable churn reasons are outside of the influence of a supplier organization, while controllable churn can be influenced through organizational actions (Braun & Schweidel, 2010). Knowing the reason behind customer churn can allow organizations to more effectively use their budgets in their attempts to reduce/maintain churn rates.

There are many reasons for relationship termination. Some might be due to dissatisfaction, service failures, personal reasons or the termination might even be a strategic move (Pick, 2010). A large number of antecedents steer the relationship towards termination, many of which are company- and/or industry-specific. One important antecedent is supplier complacency (Friend & Johson, 2016). Complacency within the buyer-supplier relationship appears while the relationship develops. It is almost paradoxical that the development of the relationship is what leads suppliers to become complacent. Suppliers become so certain that the relationships that they have built will be sustained, that they seize to put in the energy required to sustain the relationship. This complacency could affect a supplier's ability to detect churn signals, especially when no objective methods for churn detection are in place.

1.4. Methods to detect defection signals

1.4.1. Use of statistical models to predict churn

1.4.1.1. Churn prediction models

Literature on churn has mainly focused on the creation of churn prediction models in the past two decades. The purpose of these models is to predict the likelihood that a customer will churn, this allows organizations to target a select number of likely churners with retention campaigns (Ascarza, 2018a). The predictive power of these models needs to be high to prevent resource waste through the targeting of non-churners (Ascarza, 2018a). The budget for retention programs is limited and should be used as efficiently as possible. There are a few characteristics of churn that make predictive modeling difficult (Yu et al., 2011). There is usually an imbalance in the data since churners tend to only be a minority of the customer base. At the same time, data integration is made difficult due to the presence of both relational and non-relational data. Several types of noise are also often present in large data sets. Customer status is often not obvious in non-contractual settings and there are a wide variety of reasons for churn. However, churn prediction is not the only purpose

of churn prediction models, discovering the reasons why customers churn is also vital (Zdravevski et al., 2020). Organizations can take targeted action if they know the reasons behind churn. According to Ascarza et al. (2018b), variables that help to accurately predict churn should not be confused with the reasons why a consumer churns. They believe that more research is needed to find causal relations. These researchers believe that when the reasons for churn have been found, the organization needs to separate the controllable and uncontrollable causes. In the following paragraphs, different predictive analytic models will be explained and compared.

Two approaches have been followed by researchers while predicting customer churn: traditional classification methods and artificial intelligence methods (Yu et al., 2011). While the traditional methods can analyze continuous qualitative data, they are not as accurate or generalizable, when it comes to high-dimensional, nonlinear, large-scale data sets. The first category includes logistic regression and decision trees for example, while the second includes machine learning tools such as artificial neural networks, random forests, and support vectors (Ascarza, 2018a). In the following four paragraphs the most common prediction models will be explained: Logistic Regression, Decision Trees, Support Vector Machines, and neural networks.

Logistic Regression is a type of probabilistic statistical classification model that is often used in churn studies as a benchmark for new predictive models (Gordini & Veglio, 2017; Jamjoom, 2021; Rothenbuehler et al., 2015; Vafeiadis et al., 2015). It is used to make binary predictions that determine whether a customer will churn or remain. It has a rather reliable performance after the data has been transformed. It is a kind of regression analysis, which is a statistical process that tries to determine the relationship between variables (Vafeiadis et al., 2015). The technique is popular because it is conceptually simple, provides fast and robust results, and provides closed-form solutions (Gordini & Veglio, 2017). The technique has been outperformed by the boosted logistic regression model (Vafeiadis et al., 2015), the Hidden Markov Model (Rothenbuehler et al., 2015), and the SVMauc (Gordini & Veglio, 2017).

Decision Trees, Classification Trees, or Regression Trees are tree-shaped structures that divide large datasets into smaller sets through classification rules (Vafeiadis et al., 2015). Each leaf on the tree is its own classification, with different branches representing distinctive features. The appropriateness of a feature can be determined through information extraction, to make sure the most effective split is used to branch. While decision trees do not perform well for complex, nonlinear relationships, they can have high accuracy while predicting churn, depending on the nature of the data. Churn models often include numerical and categorical data types which allow for the use of DT (Jamjoom, 2021). These models allow users to understand the rules for classification rather easily. In certain studies, Decision Trees have been outperformed by artificial neural networks (ANN) and support vector machines (SVM) (Vafeiadis et al., 2015).

Support Vector Machines (SVMs) can be used for classification and regression analysis. These supervised learning models can analyze data and recognize patterns through associated learning algorithms (Vafeiadis et al., 2015). They are based on the Structural Risk Minimization principle

(Gordini & Veglio, 2017; Vafeiadis et al., 2015), which makes the models more generalizable to other settings. The SVM tries to find the optimal hyperplane. This is done by maximizing the margin between the two hyperplanes that contain the churners and the non-churners (Gordini & Veglio, 2017). There are a few advantages to SVMs (Gordini & Veglio, 2017; Rothenbuehler et al., 2015). Firstly, since SVM is based on the structural risk minimization principles they tend to be generalizable since this minimizes the upper bound of actual risk. Secondly, since SVMs solve linearly constrained quadratic problems the solution is unique, global, and optimal. Lastly, there are only two free parameters that need to be decided on: the kernel parameter and the upper bound or the cost parameter. There are a few disadvantages to SVM according to Yu et al. (2011), the algorithm is rather complex, and the false-negative rate can be high when the data is imbalanced, which is the case for churn prediction where the number of churners is far lower than the non-churners. SVMs have outperformed DT and sometimes ANN, depending on the data transformation and the type of data that has been used to build the model (Vafeiadis et al., 2015).

Neural networks are mathematical models that can transmit information and detect patterns through interconnected layers. These networks are made up of at least three layers: the input layer, the output layers, and one or more hidden layers in between where data is processed. This data has been input at the input layer and will be transformed in the hidden layers before the results are shown in the output nodes (Rothenbuehler et al., 2015). A variety of topologies and learning algorithms can be used to create either hardware- or software-based networks (Vafeiadis et al., 2015). Some of these models are capable of creating complex non-linear relations, but the results might be hard to interpret for managers and the computational costs can be high. Finding the best combination of parameters to receive the highest performance might be difficult depending on the number of parameters that need to be empirically decided upon (Rothenbuehler et al., 2015).

Boosting is another way to try to enhance the prediction models. The accuracy of a model is increased through the combination of several base classifiers which are combinations of decisions from many classification models. (Jahromi et al., 2014). Through different training interactions, the model is improved by giving more weight to misclassified instances, to train the model to be better at classifying difficult to classify instances. Not all methods can be boosted, logistic regression cannot be boosted for example because there are no free parameters that can be optimized (Vafeiadis et al., 2015).

According to Ascarza (2018a), there are two streams of research that look for alternatives to the traditional approach of targeting those who are most likely to churn. The first stream includes the profitability of individual customers, to ensure that only churners who would be profitable when they stay are targeted. The second stream uses a different approach: they focus on customers who are likely to react positively to the retention effort, through the use of uplift models. In the next paragraph, we will continue to look at some alternative models that try to improve the standard way of using churn prediction models.

The predictive accuracy differs between different methods to such an extent that it could potentially lead to thousands of dollars in additional profits or losses (Neslin, Gupta, Kamakura, Lu, & Mason; 2006). It is therefore crucial that organizations use models that are best suited to their particular case if they apply these models in practice.

Proposition 1: Key account managers use churn prediction models to identify at-risk customers.

1.4.1.2. Uplift modeling

The traditional churn prediction models mentioned above are based on predictive analytics, where historical data is used to rank customers based on their churn risk and those most likely to churn are targeted with retention campaigns. On the other hand, there is prescriptive analytics, which includes uplift modeling. The focus of this type of analytics is on actionability, on the actions that need to be taken to reach a desired outcome (De Caigny et al., 2021). These models classify customers based on their expected reactions to different retention campaigns. The focus of these models lies on finding the optimal customers to target with retention offers, based on the likelihood that they will positively react to the offer. The underlying assumption is that not all customers will react positively to retention efforts. Ascarza (2018a) found no relation between customers who had a high churn risk and those who are receptive to retention offers. In the top 50% of most likely churners, only 52% were receptive to the retention offer. By targeting churners who cannot be influenced by the campaign, the organization is wasting resources. At the same time, some customers will only remain non-churners if they are not provoked to churn (Devriendt, Berrevoets, & Verbeke, 2021). Most churn prediction models do not consider these distinct types of customers and might therefore work counterproductively. Another problem with traditional models is the feedback loops that will lead to biased models over time. Uplift models try to predict how likely an outcome is under various decision-making variables, in this situation the focus is on the chance of churn when a customer is targeted with a retention campaign. The feedback loops that trouble churn models can be internalized in uplift models through the inclusion of information on previous retention campaigns (Devriendt et al., 2021).

There are two kinds of uplift modeling techniques (Devriendt et al., 2021): data preprocessing and data processing. In the data preprocessing approach, the predictive analytics used in traditional churn prediction models are adapted to create an uplift model. The data processing approach applies predictive analytical methods. These models are usually evaluated using Qini curves and uplift-per-decile plots, while their performance is compared based on the Qini coefficient or top-decile uplift (Devriendt et al., 2021). Qini curves show the incremental gain that results from targeting an extra customer.

When a key account manager has specific actions in mind to retain customers, they could also uplift modeling to determine which customer to target to most effectively decrease the churn rate.

Proposition 2: Key account managers use uplift models to identify at-risk customers, who are most receptive to retention efforts.

1.4.2. Use of surveys to detect churn

Customer satisfaction and customer loyalty are often linked by practitioners and academics (Naumann, Williams, & Khan, 2009). Nevertheless, these two concepts are split up in this literature review since the exact relationship between the two has been debated. KAMs might consider these two concepts together or separately in practice.

1.4.2.1. Customer satisfaction surveys

Customer satisfaction measurement (CSM) is a tool that can be used to assess the health of a buyer-supplier relationship (Rossomme, 2003). Customer satisfaction is a construct that is based on customer expectations which differ widely based on the nature of the organization and the sector (Athanassopoulos, 2000). While customer satisfaction is often seen as a predictor of customer defection, some research finds it to be a weak predictor of defection (Capraro, Broniarczyk, & Srivastava; 2003). Relationships satisfaction might be low, while the customer remains committed to the relationship (White & Yanamandram, 2007) at the same time a situation might occur where a customer claims to be satisfied and still churns, which happens in 65% to 86% of all switching cases (Naumann et al., 2009). While the use of satisfaction measurements as a tool to predict customer churn is challenged in theory, it is still applied in practice.

There is a difference between the satisfaction of a B2B customer and a B2C customer. While B2C customers are individuals who can decide on their own whether they wish to continue their transactions with a specific business, B2B customers are entire organizations where many individuals take part in decision making. Measuring satisfaction for an organization is more difficult. While some research tries to determine the satisfaction of clients based on the responses from a single key contact, this is not sufficient. The satisfaction level of all relevant individuals within the organization has to be measured (Rossomme, 2003).

Fluctuation in satisfaction levels might affect customer defection. According to Capraro et al. (2003), customers who have experienced a large fluctuation in their satisfaction are inclined to search for knowledge about alternatives during an unsatisfied period. This acquired customer knowledge of alternatives will allow these customers to switch more easily which can lead to defection. A single satisfaction survey will only give a static image of the satisfaction level within the organization. If a respondent happens to be satisfied during two survey moments, then the organization could be led to believe that this organization will be unlikely to churn. However, if this respondent had an unsatisfactory period between the two survey moments, then they might have gathered information during that period that could allow them to switch more easily the next time they are unsatisfied.

While the link between customer satisfaction and retention is debated, it is still used as a metric for customer churn because practitioners can easily communicate its meaning and it is understood by individuals across organizations (Naumann et al., 2009).

Proposition 3: Key account managers use satisfaction surveys to identify at-risk customers.

1.4.2.2. Surveying loyalty

Much of CRM literature talks about how relationship management results in customer loyalty. Loyalty relates to churn in so far that it affects the evaluation of alternatives, the exploration of alternative partners, and the actions toward termination (Tsiros, Ross, & Mittal; 2009). One of the most popular customer loyalty measures is the Net Promotor Score (NPS) (Zaki, Kandeil, Neely, & McColl-Kennedy, 2016). The perception of loyalty within business contexts has shifted throughout the years. Rauyruen & Miller (2007) identified three main streams of research. These streams respectively looked at behavioral loyalty, attitudinal loyalty, and composite loyalty. Behavioral loyalty concerns how a customer's behavior might showcase that they are loyal to the organization, e.g., by repurchasing a product. Attitudinal loyalty concerns the consumer's attitude towards the organization. An attitudinal loyal customer might recommend their supplier to another organization, these customers have a positive attitude towards the organization. With the composite loyalty stream, came the approach where both attitudinal and behavioral elements are considered to determine whether a customer is loyal or disloyal.

In previous sections, the benefits of loyalty were already mentioned. Loyalty results from relationship quality, which is a multidimensional construct made up of service quality, commitment, trust, and satisfaction (Rauyruen & Miller, 2007). Relationship quality can be viewed both on an organizational level and an employee level. In their research, Rauyruen & Miller (2007) found that the influence of employee level relationship quality on behavioral and attitudinal loyalty was insignificant. However, Alejandro, Souza, Boles, Ribeiro, & Monteiro (2011) who specifically studied account manager relationship quality found the opposite results in their study. They found that the relationship quality with an account manager had a positive effect on loyalty and that the relationship quality with the organization as a whole did not.

While the effect of loyalty on churn and the determinants of loyalty are ambiguous, the NPS is still used in practice. This can be explained by the uncomplicated nature of the technique, which can easily be understood by practitioners and customers. Signs of declining loyalty such as a decreasing NPS score might therefore be perceived as valuable warning signs for oncoming churn by key account managers.

Proposition 4: Key account managers use loyalty surveys to identify at-risk customers.

1.4.3. Analyzing environmental changes

1.4.3.1. Changes in the macro-environment

Looking at the environment within which the customer operates might be a way for key account managers to detect an inclination to defect. Three aspects can be considered. The first is the larger macro economical environment within which a client operates (Hollmann, Jarvis, & Bitner, 2015). Governmental decisions, higher interest rates, declining GDP, demographic shifts, and trade agreements can influence the churn rates within a region (Naumann et al., 2009). There might also be technological changes or other trends that affect consumer demand in a market (Hollmann et al., 2015).

The industry in which an organization operates also influences its decision-making. An organization in a growing industry is usually more loyal than an organization in a shrinking industry. (Naumann et al., 2009).

Changes in the competitive context can impact defection rates (Hollmann et al., 2015). An increase in competitors, an increase in competitor aggression, competitors increasing their services, or competitors shifting their offerings to better fit specific client needs, or changing market demands could increase defection. Especially when switching barriers are lowered due to changes in the market (White & Yanamandram, 2007).

1.4.3.2. Changes within the customer organization

Certain changes within the buyer organization increase the chance that a customer is about to churn. These changes could potentially lead to churn and KAMs will need to determine the impact that they might have on the buyer-supplier relationship. Naumann et al. (2009) list the following factors which might affect churn: 1) decline in market share, slow or no growth, 2) change in staffing, especially in management, 3) downsizing, 4) outsourcing and 5) need for new value proposition. If the point of contact within the buyer organization leaves this might also be problematic since this severs part of the relational ties between the two organizations. Besides outsourcing, takeovers, mergers, and internationalization could also potentially lead to churn. Another crucial factor that could lead to churn is financial problems and actual bankruptcy. While KAMs have little means to influence the bankruptcy of a customer, being aware of churn due to the aforementioned reason remains important. Being aware of the churn risk can allow KAMs to search for leads to replace the revenue that will be lost due to the financial problems of a client.

1.4.3.3. Changes within the supplier organization

During the course of the buyer-supplier relationship, changes might not only occur at the buyer end of the relationship but also within the supplier organization. According to research from Naumann et al. (2009), defection rates increase for acquired customers after mergers & acquisitions. M&As often lead to staff reductions, which severs personal relationships between employees and clients. This can also happen when the employee turnover in an organization is high. M&As go hand in hand with tremendous growth, sometimes the growth in customers is not matched with growing technical support and responsiveness. In conclusion, while key account managers should consider warning signals within the environment and within their customers, it might also be interesting to consider how the changes within the employer organization could be perceived by clients. Certain changes can lead to doubts and uncertainty for clients, which can result in churn.

Proposition 5: Key account managers use environmental analysis to identify at-risk customers.

1.4.4. Networking

Networks are made up of different nodes which are connected through threads. The nodes could be viewed as organizations or as individuals depending on the unit of analysis. The threads are interactions or relationships which are built on interaction. Communication is a key antecedent of relationship creation (Murphy & Sashi, 2018). Ojasalo (2004) considered relationship research as a subsection of network research. In churn research, the unit of analysis is usually inter-organizational relationships at the organizational level. However, in KAM research the unit of analysis can be the individuals within the inter-organizational relationship. When this view is taken the relationship between two organizations in a network is made up of another network based on interaction and relationships. The chances for information exchange rise with the number of contacts and so does the chance of a relational exchange (Macneil 1981). It could therefore be argued that when creating a network, organizations could benefit from having multiple employees interacting within the larger inter-organizational relationship. However, the effectiveness of a large number of contacts seems to be dependent on the communication mode and the message that is sent (Murphy & Sashi, 2018). In digital communication, more contacts are preferred, while fewer contacts are preferred in in-person communication. Within the inter-organizational network, there are two patterns of interaction (Benson, 1975). The first pattern is the core interactions that aim to provide the functional benefits for which the relationship was created. The second pattern is the actions that individuals within the organizations undertake to acquire organizational resources. The core interactions are dependent on the resource acquisition actions. If an HR manager wishes to create a relationship with a smartphone manufacturer to acquire these models as benefits to attract new employees, then they will first need to acquire the resources to ensure that this deal can go through. The two main resources within an organization according to Benson (1975), are money and authority. KAMs that wish to ensure that they can maintain their relationship with the organization as a whole have to ensure that their network contains the individuals who possess these resources.

These inter-organizational networks are linked to the wider economic environment as well (Benson, 1975). As mentioned in the previous section, M&A activity can influence churn likelihood. These activities create large network shifts as the relationships build up by two separate entities are transformed as the two entities become one. At the same time, competitors are also present in business networks. While competitive interaction is usually what creates these relationships, there are three other relationship types for competitor relationships within a network (Bengtsson & Kock, 1999). Social and information exchanges are the main building blocks of these relationships, whereas buyer-supplier relationships are built on economic exchange. These types are co-existence, cooperation, and co-opetion. Through interactions between competitors, activities that could lead to customer churn can be picked up. If a competitor introduces a new product line that is superior to the supplier's current offering this could lead to churn. When KAMs detect these changes, they could determine the customer's defection likelihood based on how well the new product line fits the client's needs.

Network picturing could be used as a tool by KAMs to discover the key relationships in their network (Abrahamsen, Henneberg, Huemer & Naudé, 2016). Network pictures are a visualization of how an individual sees the boundaries of the firm and their perception of their environment. First, the internal structure of a customer is considered and then the more distant actors are considered. These pictures can be made of personal relationships and inter-organizational relationships as well.

KAMs can not only use these network pictures to uncover the internal processes within a customer that lead to the defection decision, but it can also allow them to uncover previously unconsidered actors within the network that could influence churn decisions. Certain common relations between a focal buyer-supplier relationship can possess knowledge that is unavailable to the key account manager and that would be a churn signal if they were aware of it. Network picturing and other networking activities could be used to detect churn signals.

Proposition 6: Key account managers use their network to identify at-risk customers

1.5. CRM tools and intra-organizational information sharing

Customer churn reasons and churn signals can take on numerous forms, for this reason, KAMs might use tools to help them maintain an overview of the status of their customer and the state of the market. Customer Relationship Management (CRM) tools is an umbrella term for a wide breadth of applications that allow for the storage of customer data. This data can take the form of complaints, emails, sales data, and more. Analyzing this data can allow organizations to identify customers at risk for defection (Lazarov & Capota, 2017). These systems can be used as the basis for the creation of churn prediction models. However, they can also be used purely for data storage purposes with the interpretation being left to employees. CRM is a technology-enabled sub-section of relationship marketing (Payne & Frow, 2016).

There are many different applications for CRM systems, with opportunity detection being a common one. CRM systems also allow for intra-organizational sharing as every employee can access the system and view relevant aspects of the customer file. These customer files are based on the input of multiple individuals and departments in the organization and can allow for a helicopter view.

1.6. Problems with churn signal detection

A difference exists in the perceptions of suppliers and customers on the determinants of defection (Friend & Johnson, 2016). The reasons behind defection might not always be determined based on a single rational reason. Sometimes a combination of small reasons that the customer cannot immediately identify is behind the defection decision. Defection needs to be viewed from a long-term perspective. Hollmann et al. (2015) describe how defection energy is built up over time due to positive and negative events within the relationship. It might be difficult for an organization to keep track of all the different signals that might be given out over the course of a long relationship, especially if employee turnover is high. Hollmann et al. (2015) distinguished between different events within the buyer-supplier relationship. Structural events are a result of formal relationships, which is about all the functional reasons why the relationship exists. Emergent events are not a necessary result of the formal relationship but appear as a by-product of them. Environmental events are all events outside of the buyer-supplier relationship. Peripheral events at the periphery of the relationship reason. Peripheral events can occur in both the supplier and the customer organization. While events internal to the relationship make up the majority of the events that determine the defection energy, nearly a third of events are external. This means that a large part of the defection

decision is the result of events external to the buyer-supplier organization. This means that a large amount is determined by factors that are outside of the control of key account managers. This also means that far more elements have to be considered than just those within the buyer-supplier organization.

Since B2B firms handle a small portfolio of customers and key account managers handle an even smaller subsection of those customers the potential use of large-sale quantitative data is reduced. At the same time, it might be difficult to detect behavioral patterns that are transferable to other sectors and organizations (Pick, 2010).

2. Methodology

2.1. Goal/ objective

In this research, we try to discover how signals of customer churn are detected in practice. Signals of customer churn are defined as the signs that indicate that a customer is considering the termination of the relationship with a supplier, either fully or partially. Signals of customer churn are potentially as numerous as the reasons for customer churn. Signals can be sent out consciously or subconsciously and might be detected through personal contact, specific tools, and a number of other methods and techniques. The reasons behind relationship dissolution have been examined heavily, this research focuses on how this termination intent is detected by suppliers. The research focuses specifically on key account managers, based on the assumption that a key account is a valuable customer that a supplier wants to keep.

2.2. Research design

Given the complex nature of the churn phenomenon and the enormity of potential churn signals and detection techniques that are available to practitioners, we decided on a qualitative research design. In-depth interviews allow researchers to explore facets that were left unconsidered during the initial stages of research (Hollmann et al., 2015). Through storytelling, certain aspects or steps in the churn detection tale can be uncovered.

2.2.1. Sampling procedure

Fifteen in-depth interviews were conducted for this study, with each respondent holding a sales function. Some of the respondents worked for the same organization but in different departments to gain an insight into whether churn detection techniques differ within organizations. While key account managers were preferred respondents, some of the respondents no longer held a KAM function but lead teams of KAMs or had held the function in the last few years. One respondent was in the process of switching to key account management from account management. The decision to focus on Flemish respondents that have experience in key account management was made to increase the internal validity of the study. At the same time, the decision to limit the respondent set to key account manager also allows us to focus less on whether the organization wishes to retain a particular client. This was based on the assumption that organizations wish to retain key accounts, since they hold enough value for organizations to put resources aside specifically to focus on their retention. The respondents' ability to speak Flemish also allowed for easier communication between respondents and the interviewer. In this study we only considered what churn signals are perceived by KAMs on the supplier side, no dyadic approach was taken.

Two methods were initially used to find potential respondents. The first method included searching for KAMs within Flanders through the social media site, LinkedIn. However, the response rate through this medium was dissatisfying and ended up not yielding any respondents. The second

method was to make use of the researcher's personal network to find willing respondents through the snowball techniques. Three contact people were asked to search for willing participants in their professional networks to cover a variety of sectors. However, only one contact person ended up delivering viable candidates. After every interview, the respondent was asked whether they could bring the interviewer in contact with another key account manager that would be willing to participate in the research. This led to more respondents as well. The nature of the original contact person's network ended up influencing the industries within which respondents operated. The contact person holds an IT function in a company that is subject to the Belgian Public Procurement Law. The IT environment in Belgium is a tight-knit environment and respondents' references oftentimes fell within this sector as well. At the same time, many of the respondents' clients were organizations that are subject to the law of public tenders, which influences churn detection since churn can be involuntary more often. Organizations subject to the public procurement laws have to re-enter the market every few years, this makes retention more difficult compared to the private market. In the end, twenty people were asked to participate in the study, fifteen of whom agreed to an interview, which resulted in a response rate of 75%. Table 1 contains the sample description. This sample description includes the current job title of the respondent, the years of experience they have in account management, the supplier and customer industry, the department within which the organization operates, and the length of the interview. The customer or supplier industry could influence churn reasons and churn detection methods complacency (Friend & Johnson, 2016). The years of experience could also influence the detection methods that a KAM prefers (Morris & Venkatesh, 2000). Interviews lasted 61 minutes on average. In Appendix 1 an overview can be found of the connections between the different organizations. Both the link between co-workers and the link between the different competitors are shown here, these links can be used to draw comparisons between competitors and within organizations.

Table 1: Sample description

Respondent[ia]	Current job title	Years experience[b]	Supplier industry and department	Customer Industry	Length of interview[c]
Jacob	Senior Corporate Account Manager	11	Telecom	Varies	56
Michael	Key account manager B2B (mobile)	17	Electronics; vertical market	Finance, health care, government	75
Bert	Sales & marketing manager	6	HR & staffing, business services; HR & payroll	Varies	81
Thomas	Digital sales consultant strategic accounts	12	Printing & IT solutions	Varies	58
Eric	Key Account Manager	5	Cloud telecom provider	Varies	47
Anton	Sales manager	7	Cloud telecom provider	Varies	55
Jonas	Key Account Manager	5	Document management solutions	Varies	58
Liam	Key Account Manager	4	Electronics; distribution	Electronics distributors	53
Sarah	Solution sales mobile	7	Telecom; mobile	Government	50
Lucas	Account executive	21	IT service management; consultancy	Enterprise market	56

Dean	Sales & marketing manager	11	HR & staffing, business services; wellbeing	Varies	79
Noah	Manager Network Development	15	Automotive company	Varies	57
Arthur	KAM	7	Automotive company; automotive parts	Distributors and garages	72
Nicolas	Public sector sales manager	12	Information technology & services ; Public services	Social security and federal government	60
Julie	Account manager Healthcare	5	IT services & IT consulting	Healthcare	58

[a]Names are pseudonyms
[b]In account management
[c]In minutes

2.2.2. Data collection and analysis

The interviews were in-depth semi-structured interviews, which means that some variation is present in the questioning of every respondent. Semi-structured interviews allow for a more in-depth look at a topic, while also allowing respondents to insert unexpected items (World Health Organization, 2004). In Appendix 2 the original topic guide can be found, while Appendix 3 shows the final topic guide. The topic guide was adapted throughout the process based on observations from the researcher. The aim was to interview respondents at their place of business to allow them access to their internal systems and other materials that they might wish to show during the interviews. However, due to the busy schedules of the respondents and Covid-19, some interviews were conducted online through Microsoft Teams. Nevertheless, respondents interviewed online were still able to access tools and internal systems. Through screen sharing, they could access their systems and share that information with the interviewer. In one situation the interview was conducted in a space provided by the interviewer, at the request of the respondent.

There were two phases to the interviews. In phase 1 respondents were interviewed based on the topic guide and at the end of the interview, they were shown the propositions of the research. By allowing respondents to review the propositions we could ensure that the proposed propositions were in line with the signal detection methods applied in practice. This review led to the addition of proposition 6. Phase 1 involved three respondents. In phase 2 respondents were interviewed based on the topic guide and were not shown the propositions. All the interviews were recorded and transcribed, this resulted in 234 pages of interviews. The interviews can be accessed through a link in Appendix 5. The data that resulted from the interviews was coded in NVivo academic.

A combination of deductive and inductive analysis was used to analyze the transcripts (Thomas, 2006). While data were organized according to the original propositions to test them, the preconceptions of the literature review did not prevent the addition of new churn detection methods, churn signals and churn reasons that were not considered previously. Inductive coding led to three

wider concepts, while deductive coding was applied to analyze the codes according to the propositions

2.3. Results & Interpretation

2.3.1. Results from inductive coding

The resulting higher-level codes from the inductive coding were: Churn reasons, churn signals, and ways to detect churn signals. These higher-level codes follow a logical order. Churn reasons lead to churn signals which can be detected by KAMs through specific channels and methods. For example, an organization starts to consider churn because the current service provider's offering no longer fits their needs. The churn signals here might be complaints about the ineffective nature of the current tools. The signals can be picked up through a ticking system or in a meeting where a manager informs the KAM that they are dissatisfied with the service. This distinction is in line with the reasoning of Ascarza et al. (2018b) according to whom, the variables used to accurately predict churn in churn prediction models should not be confused with the churn reasons. Certain variables or other signals can indicate churn, without being the underlying churn reason. The following figures show the subcategories coded under one of the three main categories. The size of each element is linked to the number of references made about it during the interviews.

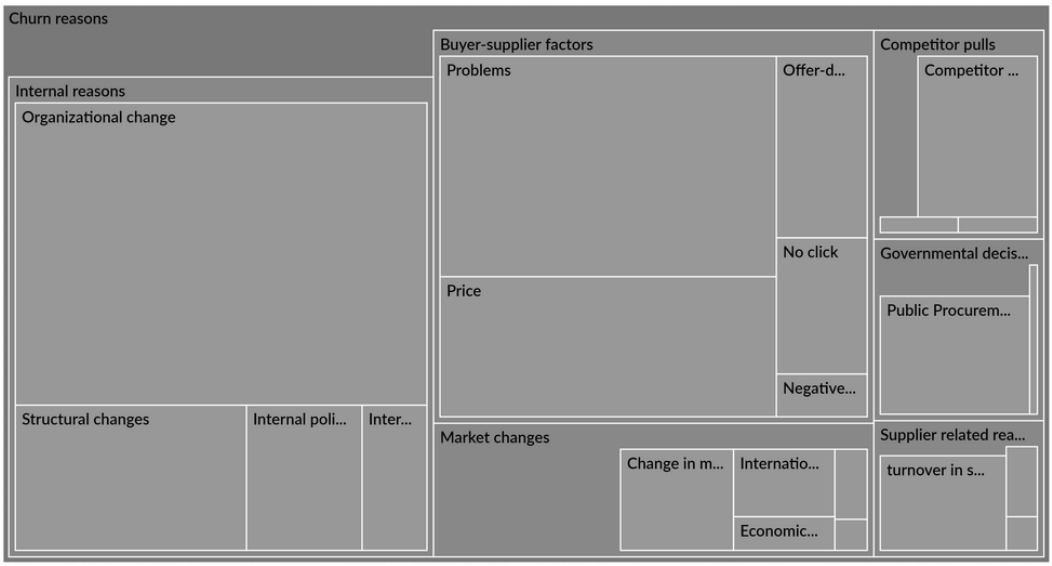

Figure 2: Churn Reasons Hierarchy Chart of Codes Compared by Numbers of Coding References

Churn reasons were split up into seven categories, which by coding references from highest to lowest are internal reasons (132), buyer-supplier factors (112), market changes (28), competitor pulls (23), governmental decisions (20), supplier-related reasons (13). Internal reasons are aspects within the client organization that are independent of the buyer-supplier relationship. Supplier-related reasons are aspects within the supplier organization that can lead a client to churn, without necessarily being linked to the buyer-supplier relationship.

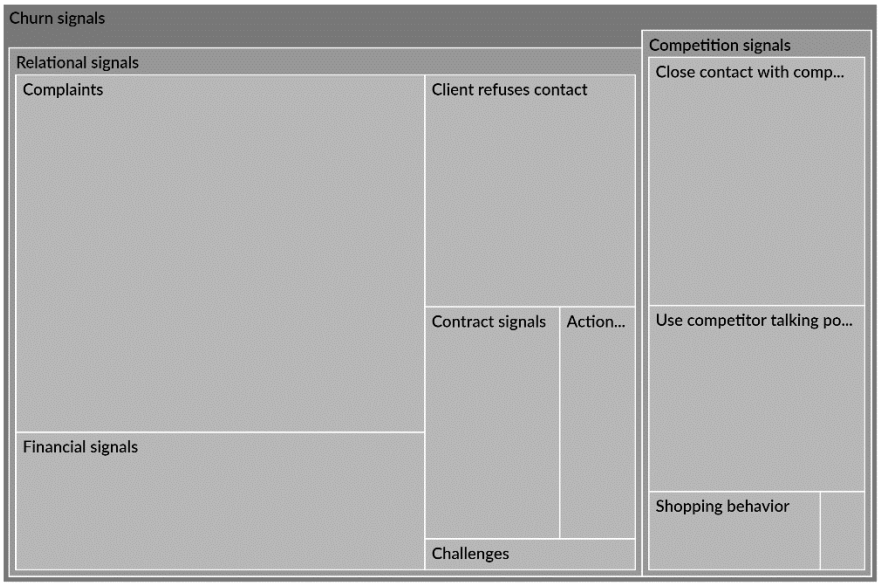

Figure 3: Churn Signals Hierarchy Chart of Codes Compared by Numbers of Coding References

Churn signals were divided into relational signals, which are signals that signify dissatisfaction within the buyer-supplier relationship, and competition signals, which are signals of a client's interest in a competitor. Relational signals were referenced more than competition signals, with the main focus on complaints, followed by financial signals and clients refusing contact. Signals of competition were mainly when KAMs noticed a close relationship between the client and their competitor and when the client starts using competitor talking points. Sometimes shopping behavior was also observed, which is shown through repeated comparisons with competitor offers.

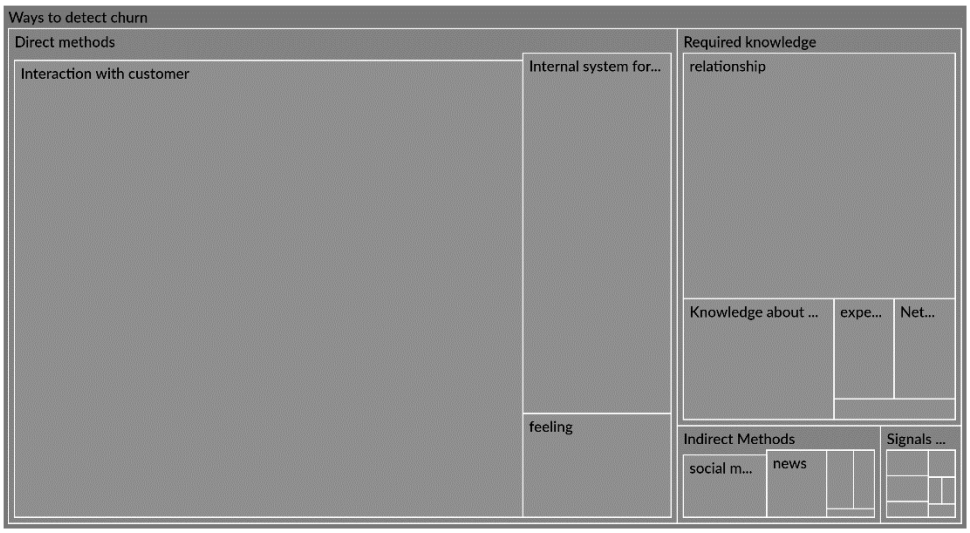

Figure 4: Churn Detection Methods Hierarchy Chart of Codes Compared by Numbers of Coding References

Within the category of churn detection methods, a section called required knowledge was added besides the methods. There are certain factors that a KAM needs to possess to be able to detect and/ or correctly interpret certain churn signals. KAMs need a relationship with the client, some knowledge about the competitor, a certain experience level, and a network to be able to detect

specific churn signals. Direct methods that attempt to detect churn through contact with the customer were mentioned more than indirect methods where signals are picked up without contacting the supplier.

2.3.2. Result from deductive coding

The three classes previously detected were also categorized according to the original six prepositions about the methods for churn detection. No codes were placed under proposition 1 and proposition 2. According to the number of references most responses fit within proposition 6 networking followed by proposition 5 environmental analysis, proposition 3 satisfaction surveys, and proposition 4 loyalty surveys. Under proposition 6 inter-organizational networking, which is networking between the buyer and the supplier, was most common. With limited mentions of distributor networks, competitor networks, and industry networks. The environmental analysis was split up into changes within the buyer, changes in the market, changes to competitors, and changes in the supplier.

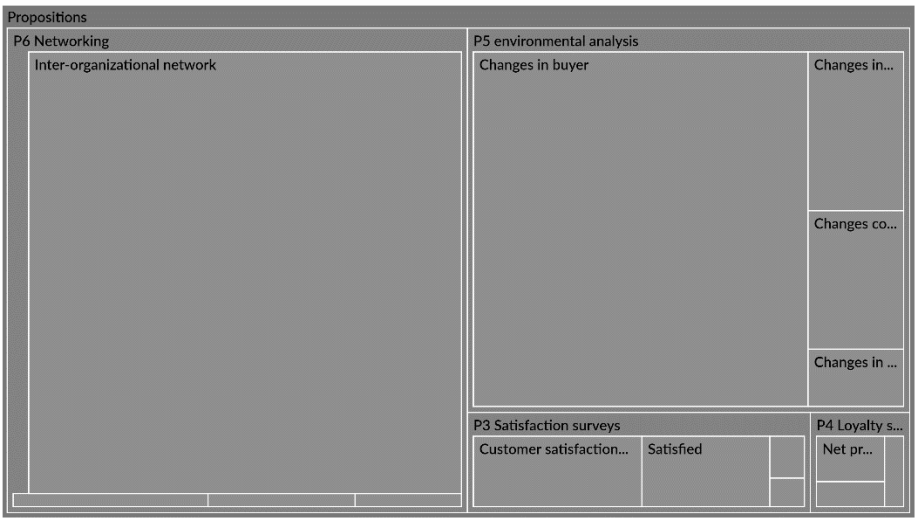

Figure 5: Propositions Hierarchy Chart of Codes Compared by Numbers of Coding References

In Appendix 6 a general hierarchy chart of codes of all the files can be found and a more detailed hierarchy chart of codes can be found in Appendix 7.

2.3.3. Interpretation

The complex nature of churn in B2B environments was shown in the interviews. Figure 6 is a simplified network picture based on the interviews that shows all the relevant actors when it comes to defection decisions. The complexity of churn is amplified not only by the considerable number of external factors that influence the buyer-supplier relationship but also by the complexity within both the supplier and the buyer organization. To quote Michael “A client it is as if that is a single person, but that is not the case. [..] In large organizations like [examples] you have a whole group of people who are involved. […] So, depending on who the involved parties are, you will have to influence different people.” Churn decisions are made by a wide array of individuals who represent

different interests. The interests of contact people or other individuals in the buyer organization that come into contact with KAMs are not always aligned with organizational interests or the interests of the DMU. A supplier organization is an equally complex system made up of many individuals. Two quotes illustrate this: “I am not solely responsible for a customer. I have a whole arsenal of people, the office staff with [organization]” and “It is not only the account manager of the KAM, the directors also work on it [satisfaction]. […] An entire team is working on that, and everyone does the right things from within their function.” However, the substantial number of people involved in the churn decision and the considerable number of people who work on churn prevention within the supplier organization make churn detection far more complex. Different individuals detect different signals, lacking internal communication can lead to signals remaining undetected or leave problems unresolved.

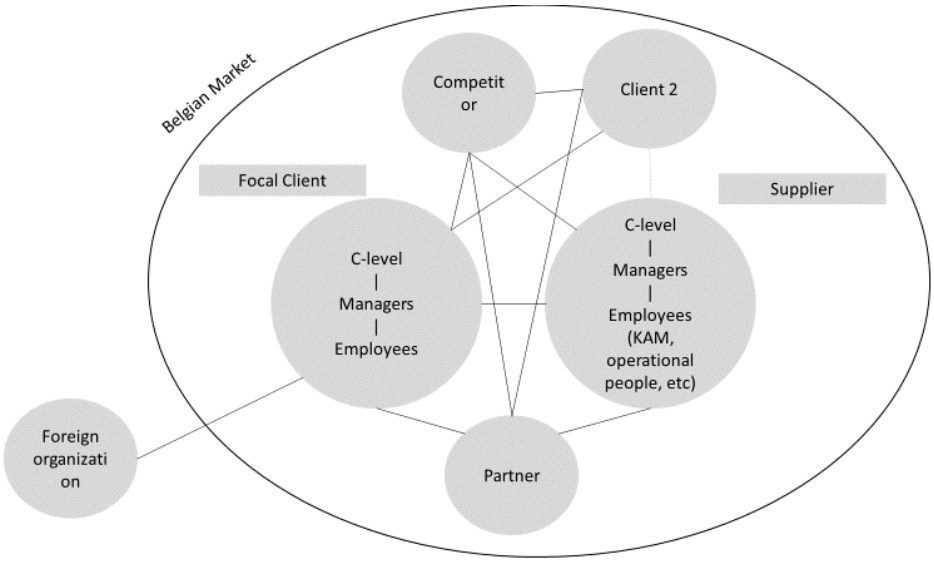

Figure 6: Network explained by KAMs

Three cases are considered first because they contained significant differences compared to the other cases. Two of the cases concern consultancy services where consultants are placed with a client and work on-site while being employed by the focal organization. Lucas and Nicolas worked for organizations that offered IT consultancy services and mentioned them during their interviews. Their situation is in part distinct from that of the others since they must consider another potential churn factor besides customer churn, which is employee churn. Their organizations place consultants with clients where the consultants work based on either a fixed-term contract or contracts of indefinite duration. Fixed-term contracts can be renewed every few months to years depending on the contract term. When an employee leaves the focal organization, this terminates the contract between their employer and the client if the organization is unable to find a replacement. Due to a shortage of IT consultants with certain technical profiles these organizations are sometimes unable to provide their clients with a consultant of comparable quality. This means that the KAMs must be more mindful of employee turnover. Both the consultant and the client can send out signals

of customer churn and/or employee churn. Consultants can pick up switching signals as they are present on the work floor of the client organization and are oftentimes seen as a colleague to the client's employees. This allows them an insider view that allows for quicker churn detection.

The third case that should be considered before the general analysis is that of the automotive parts company. This respondent was the only one that was solely focused on products instead of services. The respondent mainly focused on environmental changes when worrying about churn. The automotive parts market is under pressure due to the rise of web shops, cheap foreign products, and car manufacturers entering the aftersales market. At the same time, both the end-user and the retailers are extremely price-focused and will switch based on product availability and price reductions. The number of deliveries was a third key factor that determined customer churn. The way Arthur communicated about churn made it appear that he felt like he had little control over churn besides offering price reductions and trying to convey to his customers that a lower initial price offered by competitors could result in higher prices at the end of the year. Since Arthur was the only respondent who focused solely on products it would be erroneous to conclude that product-focused organizations are all subject to price and have little churn signal detection methods in place besides keeping an eye on larger shifts within the environment.

2.3.3.1. Churn reasons

Based on the interviews churn reasons have been split up into six categories, which can be found in Table 2, the codes are listed based on the number of references made to them in the interviews. The first category is internal factors. Certain factors within the client organization influence the likelihood of churn such as internal politics, internal problems, structural changes, and changes in organizational structure. Internal politics regarding budgets might lead to churn (Benson, 1975). For example, if the IT department could previously use part of the HR budget to purchase smartphones for employees and the decision is made to only use the IT budget moving forward then the IT manager might decide to switch to a cheaper alternative. When political decisions within the organization lead to churn this can oftentimes feel unexpected. While the KAMs direct contact appears to be extremely satisfied and they score well on loyalty surveys, the contact is forced to churn due to the interests of another party within the organization. In these situations, KAMs are sometimes unaware that their contact is not in charge of decision-making. Ensuring that a contact is in fact the decision-maker can help increase the detection of churn signals. Changes in the organizational structure such as merges can lead to churn (Naumann et al., 2009). When two organizations come together the decision needs to be on with partnerships to keep. Takeovers, mergers, and acquisitions are all situations where two organizations come together and need to cut out duplicate elements. Organizational shifts focus on changes within the organization that are less drastic than structural changes. While structural changes influence almost every element within the organization, organizational changes are less far-reaching. A change in higher management, changes in the DMU, or budgetary changes would all be considered organizational shifts. Changes in DMUs, especially when the decision-making power is taken away from the current point of contact and put with the purchasing department, oftentimes lead to churn. Different departments within an

organization have different requirements (Leek & Christodoulides, 2011) and if a KAM is unable to translate the old offering to fit the new demands, then churn becomes likely. Internal problems like overworked employees who are unable to filter through complaints might also lead to churn.

Table 2: Categories of churn motives

1. Internal reasons
    a. Organizational changes (e.g., change in higher management)
    b. Structural changes (e.g., takeovers)
    c. Internal politics (e.g., IT vs purchase department)
    d. Internal problems (e.g., financial problems)
2. Buyer-supplier relationship factors
    a. Problems (e.g., system failure)
        i. One-time problems
        ii. Structural problems
    b. Price
    c. Offer-demand mismatch (e.g., desire for unavailable tooling)
    d. No personal chemistry
    e. Negative perception spread
3. Market changes
    a. Change in market demand (e.g., electrification)
    b. Internationalization (e.g., foreign competitors)
    c. Economic situation (e.g., Covid)
    d. Rise of alternative business models (e.g., web shops)
    e. Mutual partner churns
4. Competitor pulls
    a. Better offering
        i. Better price
        ii. Better quality
    b. Hire former colleague
    c. Take-over partner
5. Governmental decisions
    a. Public Procurement Law
    b. Subsidies
6. Supplier push
    a. Employee turnover (e.g., no fixed contact person)
    b. Growing pains (e.g., service desk cannot meet growing client portfolio)
    c. Bad management KAM (e.g., lacking empathy KAM)

Buyer-supplier relationship factors focus on changes within the relationships between the supplier and the buyer that might push a buyer towards churn. These factors are similar to the Relationship Internal Events that were considered by Hollmann et al. (2015). Offer-demand mismatch is separate from the wider changes in demand, changes in demand are about a market trend while offer-demand

mismatch is specifically about demand changes within a buyer organization that are not necessarily linked to a wider trend. Both a shift in the buyer demand and the supplier offering can lead a customer to churn. Problems are any issues that come up during the buyer-supplier relationship that led to dissatisfied customers. Many of the respondents mentioned problems leading to defection intention during their interviews. The kinds of problems were diverse, such as communication issues between the two organizations, end-user inability to work with a product, technical problems, etcetera. Price is an important criterion that is mentioned as the reason behind a client's decision to churn in nearly all cases. However, as Liam said: "so what they say is not always actually the reasons [for churn] and oftentimes price is used as a problem, but it is often not the real problem."

The third category is market changes, certain changes within the macro-environment of the buyer-supplier relationship push buyers to be more or less loyal. For example, in the interview with Jacob, he noted that Covid has made it so that organizations have become more risk-averse and are therefore less willing to switch service providers since this comes with large operational changes. However, other changes might increase a customer's churn likelihood. The electrification of the automotive industry leads to increased churn risk for automotive companies who are unable to make this switch in the short term (Wittmann, 2017). Internationalization also affects churn decisions especially when multinationals decide to centralize decision-making power to headquarters which are not located in Belgium. Local relationships become less important as the decision-making power is taken abroad.

Competitor pulls are activities on the part of the competitor that might pull customers towards them. It could also be seen as changes in the attractiveness of competitors (Jones, Mothersbaugh & Beatty, 2000). Better prices and an offering that better fits a client's specific desires were often mentioned as factors that pulled the client towards the competition. The attractiveness of a competitor could also increase when they acquire a partner who connects the client to their current supplier or by hiring KAMs that have worked for their competitors. When a KAM switches employers they remove a part of the relationship between the supplier and the buyer. The same can be said about the situations where a partner is taken over.

Certain governmental decisions can also become reasons for churn. The Public Procurement Law in Belgium requires that public organizations return to the market after a few years. Public tenders need to be written and the organization needs to give every qualified party on the market a fair chance to win the tender (Erridge and Greer, 2002). The Public Procurement Law could therefore lead to involuntary churn, an organization might wish to remain with the incumbent organization and be obliged to switch service providers due to the processes of the Public Procurement Law. At the same time, a change in subsidies might influence organization budgets and push them to churn.

There are also factors within the supplier organization that might push the client towards the competitor. Bad management KAM entails all the problems that come with a KAM who is unable to identify problems and solve them efficiently. Growing pains are common for organizations that have recently participated in M&A activity. While some growing pains might be practical in nature,

e.g., the service desk being unable to handle the rising number of customers, others are more subjective. Liam mentioned a previous employer where the immense growth led to a disconnect between the existing client base and the growing supplier. Existing clients hardly recognized the supplier that they signed with in the grown organization. Clients who chose the organization for its familial feel and personalized approach started considering churn. Employee turnover within the supplier organization can be warning signs for a client that something in the organization is amiss. In IT consultancy high employee turnover might lead to churn as the client is uncertain whether the consultants, they work with will remain long term. High turnover inhibits the formation of personal bonds between the organizations and these personal relationships are a churn deterrent (Caruana, 2003). These supplier-related churn reasons can be difficult for KAMs to combat.

2.3.3.2. Signals of churn

Table 3: Categories of churn signals

1. Relational signals
    - 1.1. Complaints
        - 1.1.1. Escalation
        - 1.1.2. SLA breached
        - 1.1.3. Directly contact higher levels
        - 1.1.4. Old matter suddenly problems
    - 1.2. Client refuses contact
    - 1.3. Financial signals
        - 1.3.1. Unreached forecasts
        - 1.3.2. Unpaid bills
    - 1.4. Contract signals
        - 1.4.1. Registered letter
        - 1.4.2. Ask to see contract
        - 1.4.3. Wait to resign contract
        - 1.4.4. Reject additional offers
    - 1.5. Actions do not match words
    - 1.6. Challenges
2. Competition Signals
    - 2.1. Close contact with competitor
    - 2.2. Use competitor talking points
    - 2.3. Shopping behavior
    - 2.4. Tender written towards competitor

The two categories of churn signals found within the interviews were relational signals and competition signals. Relational signals are signals within the buyer-supplier relationship that signify potential defection. These come in the form of complaints, a client refusing contact, financial signals, and contractual signals. Complaints can be the results of breached Service Level Agreements (SLA). A breach in the SLAs can either be signaled directly by the competitor but might also be picked up by the organization beforehand. Escalation is a system where complaints are escalated. While complaints from low-level employees might not be viewed as a churn signal by KAMs, the same complaints from high-level employees will be viewed as warning signs. If complaints are addressed to higher-level management within the supplier organization instead of with the KAM, this was also viewed as a signal of churn. If old problems are brought up again or if old matters are suddenly brought up as problems this could also signal defection. While certain unsatisfactory matters used to be acceptable, they have suddenly become unacceptable to the client.

A client refusing contact with the KAM could also signify churn intention. When communication is broken it takes away control and the ability to address problems and repair the relationship. Financial signals can be either deliberate signals that the client is unsatisfied and will refuse to pay until their complaints are addressed, or they are a sign of financial problems. Certain signals are specific to contractual relationships. Clients asking to see their contract could be a sign that they are comparing conditions with competitors. Unwillingness to resign the contract before the contract negotiations officially must begin can be a sign of dissatisfaction and churn intention as well. Many contracts can only be terminated by sending a registered letter. These letters must be sent out a certain time before the contract end. Since there is some time between when the registered letter is sent out and the end of the contract, KAMs could still attempt activities that will lead to retention. While the customer is still officially bound to the supplier, these letters are seen as the start of a win-back trajectory. When clients listen to propositions and agree to go along with them, it might be a churn signal if they never effectuate these promises. Certain satisfied customer might challenge their KAM to get better conditions by comparing them to competitors. KAMs must be able to discern challenges from seriously dissatisfied customers.

The signals that a customer is seriously considering switching towards a competitor are 1) close contact with competitors, 2) the use of competitor talking points, 3) shopping behavior, and 4) tenders written towards the competitor. The fourth only happens in situations where tenders are written. Close contact with competitors can be viewed at events, through social media, and sometimes even on registration lists at the client's reception. The use of competitor talking points during discussions and meetings was mentioned a few times as a potential warning sign. However, if a KAM is unaware of the competitor's offering and value proposition, they might be unable to detect these signals. Shopping behavior can be viewed when customers start by comparing the offering of the organization to not just one competitor, but many. These clients will not necessarily use competitor talking points, nevertheless, they will regularly compare the organization to their competitors on specific elements such as price, way of working, and product quality.

2.3.3.3. Methods to detect churn

2.3.3.1.1. Requirements

Certain basics are required for KAMs to be able to detect certain churn signals. The five basics mentioned by KAMs during the research were as follows: 1) experience, 2) networking, 3) knowledge about the client, 4) knowledge about competitors, and 5) relationships. A certain experience level is needed to become aware of certain signals that should be considered. In the interviews, examples were often given of situations where a customer churned because of a signal that the KAM originally did not consider and was more aware of in the future. Through experience, KAMs learn to recognize certain signals as warning signs that a client is considering defection. Networking is important to create connections not only within the client organization but also with other partners like distributors and competitors. Through an increase in the KAMs network, they get access to alternate views on the buyer-supplier relationship and they acquire access to more information than what the client provides. One example is how a trusted partner might inform a

KAM that their client has contracted their services through a competitor. At the same time, considerable knowledge about the client is needed to be able to detect churn signals in time. Internal politics can impact the churn decisions made within an organization, if the KAM is unaware of the internal power dynamics within the client, they might be unable to detect churn signals because they are focused on the wrong individuals within the organization. Knowledge about the competitor is also required to detect churn signals. Certain signals such as clients using competitor talking points can go over a KAMs head if they are unaware of the competitor's offering. Sarah told a story about a client whom she believed to be thinking along with her on how to work out the project, in actuality the client was parroting talking points that came to them through a competitor's presentation. The eventual churn was unexpected here since Sarah believed that the client was being cooperative, while he was being pulled towards a competitor's offer. Building relationships within the client organization is also crucial to churn detection. Nearly all the respondents mentioned how direct communication is the best approach to churn detection. However, the open and honest communication that is required to have direct conversations about potential churning behavior required trust, which results from the relationship that has been formed between the KAM and contact people within the organization. Strong relationships are oftentimes built informally through events and dinners.

2.3.3.1.2. Direct approach

The direct approach consists of methods where churn detection signals are picked up through contact with the client. The three methods are direct communication with a client to detect churn signals, a gut feeling that leads a KAM to believe that churn is on the way, and churn detection systems that the organization has created. Key to these churn detection systems is that they detect signals through contact with the customer. The detection systems were in order of references, surveys which consist of customer satisfaction surveys and the NPS, CRM systems, internal signal sharing methods, complaint systems, dashboards, and customer files.

Before going into the methods of churn detection through direct communication, the perceptions of situations where customers prefer limited communication will be considered. According to one perception, limited communication is desired. In this approach limited communication signals that a customer is satisfied. The reasoning is that managers are oftentimes busy and would prefer to not be continuously contacted. Crucial within this approach is the agreement that the contact person will contact the KAM in case of problems since this is the only way for KAMs to pick up churn signals. A second approach involves regularly contacting customers, even if the client showcases a desire for less frequent contact. Anthon mentions that "*Communication is key. If you want to discover any churn it will be by communicating and the communication must come from you, not the client.*" Research from Hung & Lin (2013) showed that higher satisfaction was related to high levels of effective communication, which is in line with the second approach. Contact is oftentimes intensified near the end of contracts or near other compelling events where customers make decisions on the continuation of the partnership. The creation of a contact plan can aid KAM who subscribe to the second approach. These plans state the required level of contact, dependent on a customer's need and the importance of the customer to the supplier. The latter is usually dependent on the size of the KAM's client portfolio. KAMs with smaller portfolios, from three to ten clients,

might not segment based on importance. One of the respondents had a portfolio of forty customers and segmented the contact level based on an ABC approach, where A-customer get contacted most often. Contact regularity went from one to two times a year up to monthly contact moments. Formal contact moments like meetings were often limited to once or twice a year, while more informal calls and mails could occur almost weekly.

Interaction with the customer was mentioned by nearly all the KAMs as a method to detect churn. Respondents often mentioned that customers tend to be open in their communication about churn, and contact people will directly communicate about churn intention or dissatisfaction. Since communication is an essential element in B2B relationships that determines numerous outcomes (Murphy & Sashi, 2018), it could also be important in churn detection. Communication should not only happen between an assigned contact person and a KAM but between different individuals in both organizations. Research has found that an increase in interpersonal ties leads to an increase in information sharing (Murphy & Sashi, 2018; Palmatier, 2008). Individual KAMs also need to have ties to multiple individuals within the client organization, both across hierarchical levels and across departments. The following quote by Michael exemplifies this: *"The principle behind detecting your relationship, churn or if the customer is going to change, to do this you need -generically, unrelated to the business- you need a lot of contacts. All levels, informal, formal to create and follow up on a trusting relationship."* Being in contact with the decision-making unit that decides on supplier switches is essential to churn detection. Palmatier (2008) argued that to acquire certain vital pieces of information sellers need a contact person with authority. Otherwise, the situation might occur where a contact person assures a KAM that the organization will remain in the relationship, while the decision-making unit decides otherwise against their will. The creation of a large personal network within every client can be complicated in two manners. Firstly, a contact person can wish to increase their importance within their organization and restrict access to the rest of the organization to achieve this. Second is the unwillingness of some DMUs to communicate with external parties.

Open and transparent communication which results from the creation of relationships with key contact within the supplier organization is a vital method to discover churn intentions. If contacts are unwilling to communicate or actively hide their churn intentions, this will complicate a KAMs ability to detect churn signals. Dwyer, Schurr, & Oh (1987) also proposed that relationships between organizations cannot be maintained without two-way communication.

Regular contact also allows KAMs to spot internal changes more quickly. New employees, either new contacts or new managers, oftentimes have no relationship with the KAM and some even have relationships with competitors. The introduction of new employees, with either negative preconceptions about the supplier or positive preconceptions about a competitor, in critical positions was often mentioned as a churn reason. If the KAM is not in regular contact with the organization, they could be unaware of these changes and be left vulnerable to unexpected churn.

Events were often mentioned as informal contact moments that enabled key account managers to detect churn intention. According to Murphy & Sashi (2018), personal relationships formed through informal interactions positively influence buyer-supplier relationships. The events organized by the supplier organization can be split up into two categories. The first category is topical events, where key accounts are brought together to either discuss a topic or listen to a presentation. These events

were mainly used for networking and providing added value to the client by bringing them in contact with peers that face similar issues. The second category is informal events, like watching a soccer match together in the stadium. These informal moments were sometimes where contacts mentioned churn or communication with a competitor. Clients regularly refusing to attend events was also interpreted as an indicator that churn might be underway, especially if the event is something that the client would usually go to or if they go to similar events with competitors. Sector events can be used to pick up churn signals by viewing how the client interacts with competitors at them. These events also allow KAMs to detect trends in the market that could lead to churn.

Gut feeling or just a general sentiment was sometimes quoted as being the way how key account managers noticed that a relationship with a buyer was deteriorating. To quote Jonas "*It is not as if we have a satisfaction barometer with every customer with a little icon, that one is red oh be careful. No, it is a bit gut feeling a bit yeah, knowing how your customer functions."* Nicolas also mentioned how it is difficult to quantify how you work with a customer in his sector, instead, it is about personal contact and talking to people. Leybourne & Sadler-Smith's (2006) view on intuition includes an affective component and experience that enable an unconscious reasoning process which can be quicker than analytical methods.

Of the seven internal systems for churn detection, surveys were mentioned most often. Both customer satisfaction surveys and NPS surveys were brought up. The results from these surveys are used to create action plans and are oftentimes used as a trigger to communicate with customers. By going into dialogue with customers about both good and bad scores, KAMs try to improve their approach and the relationship with the supplier. The NPS was mainly used as a satisfaction score and not as a loyalty measure. However, since most of the KAMs believe that a satisfied customer will be more willing to stay and therefore be behaviorally loyal, this could explain why the measure is used in this manner. CRM systems were also mentioned, they can be used to signal problems with the customer to KAMs from other departments of the supplier organization. CRM system is an umbrella term for hardware and software solutions that help organizations manage their customer data (Saarijärvi, Karjaluoto & Kuusela, 2013). It is therefore difficult to determine one fixed use of CRM systems since the applications are based on the data inputs. Emails, tickets from the ticketing system, revenue data, and more can be put into the CRM system. The uses of the CRM system were mainly as a place to store tickets, log opportunities, and input communication such as emails. The system was mainly seen as a way to detect opportunities and store information that aids the KAM while trying to maintain the relationship. Most of the information in the CRM system has to be interpreted by the KAM to detect churn signals from the data, no automatic detection systems were mentioned by participants. Signals could also be detected by other employees of the supplier organization and be internally communicated to the KAM. This internal communication could be facilitated through CRM systems as well.

To conclude the detection of churn signals is usually done through direct communication with a variety of individuals within the buyer organization and by a lot of individuals in the supplier organization.

2.3.3.1.3. Indirect approach

The indirect approach includes all the methods where churn signals are detected without direct contact with the client. The four main codes here are social media, the news, other network participants, and financial websites.

One of the organizations checked mentions of their organization on social media to detect problems. The use of social media in B2B relationship management has been researched (Quinton & Wilson, 2016). Mostly social media is used to have a more general overview of changes within the client. While Facebook and Instagram were also mentioned, LinkedIn was seen as the most important social media site. One respondent mentioned how their organization uses a LinkedIn subscription service called SalesNavigator. This service uses AI and data scraping to model client behavior and create regular reports on shifts within the LinkedIn network that might have strategical consequences. Contacts connecting with competitors and contacts changing their jobs could be ways to detect potential churn. While many respondents mentioned the dangers of unexpected changes in contacts and how being unaware of these changes could lead to a churn risk, none of them mentioned this service. Through the service, the respondent even knew about a potential merger before their client disclosed it.

The news was mentioned as a way to both detect larger market trends that can signal potential churn and a way to get notified of M&A activity. M&As are oftentimes treated confidentially and KAMs can be unaware of a merger until they read about it in the news.

Contact with competitors and distributors are also indirect methods that allow for churn intention detection. Depending on the supply chain a distributor might be in between the supplier and the buyer. These distributors might signal shifts in buying behavior. When in contact with a "concullega" - a Dutch term that is a combination of the word for competitor (concurrent) and colleague (collega) – they can reveal information that could lead the KAM to worry about churn. A competitor boasting at an event about a new test project that has started with the KAMs current client could be a warning sign that the client is planning a larger switch for example. Coexistence between competitors where information and social exchanges take place has been researched before (Bengston & Kock, 1999).

A few respondents mentioned keeping an eye on the financial situation of their customers. One respondent even mentioned a specific resource that they use to maintain an overview of the customers' financial situations before payments are halted. Bankruptcy and other financial problems were often mentioned as churn reasons. However, the detection of halting payments and tracking company finances as a method to detect the signals of potential churn was mentioned fairly little.

3. Conclusions and discussion

3.1. Discussion

In this section, a look is taken at every proposition and the results of the deductive analysis as it related to them. The results were rather similar among the different respondents, with nearly all of them referencing elements that can be placed under propositions 5 and 6. Nothing mentioned by the respondents could be placed under proposition 1 or 2. Elements that fit under propositions 3 and 4 were mentioned in about half the interviews, often together but sometimes separately.

Proposition 1: Key account managers use churn prediction models to identify at-risk customers.
Proposition 2: Key account managers use uplift models to identify at-risk customers, who are also receptive to retention efforts.
No mention was made of the methods from proposition 1 and proposition 2 in the interviews. While research has found that these predictive approaches outperform managerial heuristics (Gordini & Veglio, 2016; Jahromi et al., 2014). This might be due to the smaller size of account portfolios within Belgium firms. However, some of the interviewed organizations were part of larger international organizations. Moreover, four of the respondents operated in the telecom industry, which is oftentimes the focus of churn prediction research (Hung et al., 2006; Neslin et al., 2019). There could be several reasons why churn prediction models were not used by the sample. The cost to create such a model could be too high for the limited number of customers. Or the relational nature of KAM could lead to a rejection of the purely objective way of churn detection found in churn prediction models. Understanding the reasons behind the classifications is sometimes difficult, especially with prediction models based on neural networks which are black-box models (Lazarov & Capota, 2017). In key account management knowing the reason behind churn can be crucial for prevention, which might curtail the use of these models in practice.

Proposition 3: Key account managers use satisfaction surveys to identify at-risk customers.
Customer satisfaction was a theme that came back often during the interview, with the general sentiment being that a satisfied customer is unlikely to switch. Research is divided on the link between satisfaction and loyalty (Williams & Naumann, 2009). Some researchers have found that an increase in satisfaction leads to an increase in retention (Rust & Zahorik, 1993; Ittner & Larcker, 1998; Ata & Toker, 2012), while others have disputed these results (Naumann et al, 2009). Seven of the respondents mentioned the use of customer satisfaction surveys in their organizations. However, while one of the two respondents from the cloud provider company mentioned the surveys, the other one did not. So, a lack of mention of surveys might not mean that no surveys are sent out by the organization. It does signal that surveys are not top of mind as a churn signal detection method for the respondent. Usually, key account managers would engage in conversation with their clients about the scores they received. These conversations would allow them to uncover why they achieved certain scores, this allows them to increase low scores and maintain high ones. One of the respondents linked company-wide surveys to formal organizations with strict hierarchies. In their organization, every department makes its own decisions on which tools to use. Surveys can either be done internally or through an external partner. There was a belief among some of the respondents that customers are unwilling to fill in these surveys and that the limited response rates devalue this tool. The belief that customers are unlikely to fill in surveys or will only fill them in when they are dissatisfied leads some of these KAMs to believe that these tools are not an accurate representation

of the satisfaction level of their client portfolio. While more than half the respondents mentioned keeping satisfaction high to prevent churn, less than half cited the use of satisfaction surveys in their organization.

Proposition 4: Key account managers use loyalty surveys to identify at-risk customers.
Loyalty surveys in the form of NPS questionnaires were mentioned during the interviews. While the organization of one of the KAMs did not structurally send out NPS questionnaires, she informally employed this method during meetings. The NPS scores are often reviewed in association with the client. Both positive and negative scores are used to improve the way of working. NPS was mainly used as a satisfaction measure, this can be explained by the respondents' belief that satisfaction and retention (behavioral loyalty) are linked. While it is preferable to use more nuanced surveys that use multiple dimensions to predict behavioral loyalty (Zaki et al., 2016). However, the approach that most of the KAMs took where they communicated with customers in response to low satisfaction scores to understand and alleviate the reasons behind the scores. Certain researchers (Zaki et al., 2016) have argued that adding sentiment analysis can increase the reliability of loyalty measures such as NPS. Currently, some key account managers were analyzing the sentiment themselves to distinguish the level of grievance.

Proposition 5: Key account managers use environmental analysis to identify at-risk customers.
While network analysis tools were not explicitly mentioned by any of the respondents as a method to detect churn signals, many did comment on elements that were considered a part of the environmental analysis within the literature review. In order of the number of references made, most mention was made of analyzing the buyer followed by changes in the environment, changes in the competition, and changes within the own organization.

Of the five factors Naumann et al. (2009) mentioned in the literature review that could be seen as potential warning signals of oncoming churn due to buyer-related changes, change in staffing, need for new value proposition, downsizing, and outsourcing were all mentioned during the interviews. In many interviews change in staffing, both in management and in contacts, was a signal mentioned. The mentions of price as an important criterion and changes in buyer demand could be classified under the need for a new value proposition. Downsizing and outsourcing were mentioned only mentioned one time each, however, they were classified under structural change within the internal churn reasons. A category that also contained mergers and takeovers, which were mentioned more often during interviews.

Environmental changes considered by the KAMs were the general economic situations, governmental decisions, and internationalization. These changes are usually detected through the news or magazines. Naumann et al. (2009) also considered governmental decisions and Hollmann et al. (2015) mentioned shifts in the economic environment.

Shifts within the supplier organization were mentioned fairly little. In one interview growth on the part of the supplier was identified as a potential churn reason. In one of the consultancy situations, they mentioned employee turnover as a reason. Some mentioned that when a KAM leaves their employer this destabilizes the buyer-supplier relationship, especially when a buyer signed with the supplier specifically for the KAM. However, this last point of view was uncommon. The use of CRM and other information-sharing systems was viewed as crucial during these destabilized

moments. While the personal relationship can not be maintained in these systems, they do contain crucial information that can allow for an easier relationship creation.

Keeping track of the actions of competitors and their offerings were also viewed as important to predict churn intensity. Increased customer aggression in certain segments can lead to unexpected churn if a KAM is unaware of their movements, this is in line with the results of White & Yanamandram (2007).

Proposition 6: Key account managers utilize their network to identify at-risk customers
Inter-organizational networking, competitor networking, distributors networking, and industry networking are all distinct kinds of networking brought up during the interviews. Inter-organizational networking here means the creation of a vast network between the buyer and the supplier organization. These networks are built through interaction between individuals in the two organizations. As mentioned previously KAMs try to detect churn signals through interaction with actors across the client organization, which is in line with the ideas of Macneil (1981). Their colleagues can do the same thing which increases the strength of the relationship between the two organizations. The KAM will oftentimes try to build strong relationships with key contacts within the client, especially individuals with decision-making power. Networking happens not only formally, but oftentimes informally. Through events and dinners, personal relationships are created to strengthen the network and to increase the chance to acquire critical information. Hocutt (1998) included these social bonds as a means to create relational commitment and here it is argued that they could also be used to gather information on this commitment. Changes in the network, like key contact leaving the organization lead to weaknesses in the network that can prevent KAMs from acquiring this information. Similar weaknesses result from key contacts who actively prevent the creation of a wider network by the KAM. The utilization of these inter-organizational networks was one of the main ways KAM detected churn signals. When distributor networks and industry networks were mentioned, this was largely in the context of client acquisition. While mention of "concullegas" informing the KAM of churn signals came back twice in the interview (Bengtsson & Kock, 1999), this method could be ineffective for proactive churn detection. By the time a competitor signals their (increased) relation with a client it could be too late.

3.2. Conclusion

Direct communication was the preferred method of churn signal detection among the respondents in this research. To increase the chances of successful churn detection KAMs need to build relationships with certain key people within the organization. A combination of decision-making power and regular interaction with the provided services/products is required to provide the correct information to the KAM. Building relationships with multiple contacts also lessens the risk of a client churning when a focal contact leaves the organization or is moved internally. Any change in management or direct contacts can increase the defection chances, by having multiple advocates in the organization this chance is lowered. Both direct and indirect communication could signal a deterioration in the relationship that indicates potential churn according to the respondents. CRM systems and other tools could be used to gather data from different points within the organization, nevertheless, information interpretation by the KAMs was still required to draw conclusions. However, during some interviews, it was mentioned that certain KAMs are opposed to this

information sharing. Either due to their inability to see the value of these systems which leads them to believe that data input is not worth the effort or due to a sense of self-preservation where they wish to keep the information secret to increase their importance within the organization. Both views hinder the organization since they lead to a tremendous loss of information when a KAM leaves the organization, on top of the relational loss. Intuition and feeling were brought up by nearly all respondents, while system and tool use was far more fragmented. While CRM was mentioned by as many individuals as gut feeling, the application was far more fragmented. Only two organizations used CRM over the entire process from acquisition to problem detection. CRM systems have the ability to connect the numerous information streams that enter the organization. Other organizations use fragmented internal communication methods, where the KAM where oftentimes the first contact point that had to internally share anything they detected or where service desks deal with ground-level complaints. While many mentioned employee changes within the client potentially leading to churn within a previously satisfied customer, only one used big data to detect these changes. This detection either happens in direct communication or comes as a surprise.

While churn literature has focused heavily on churn prediction models over the past two decades, the key account management field in Belgium seems to still be dominated by relational marketing techniques. Key account managers appear to be using their networks to acquire crucial information about the state of the buyer-supplier relationship, often by directly communicating with key contacts in an informal setting. Indirect communication signals can also be interpreted as warning signs. Through this network key account managers mainly track changes within the client. To be able to track these changes and detect warning signals they need to know their client, know their competitor, and have a trusting relationship with the organization. This allows for open and honest communication where subtle signs can also be picked up. While satisfaction and loyalty surveys are sometimes used, these items will usually result in more direct communication to discover the extent of problems and dissatisfaction. Certain churn reasons cannot be controlled by the KAM, however, the ability to detect this type of churn is still valuable. In key account management, the focus is on critical accounts, which means that replacing these accounts quickly when they are on the path to inevitable churn is crucial to the maintenance of company profits or the perception of the organization on the market. If KAMs are able to predict uncontrollable churn, they can shift their attention to either more acquisition activity or to upsell and cross-sell activities to compensate for the revenue that will eventually be lost.

3.3. Limitations and issues for further research

While other research has studied defection from the point of view of the customer (Hollmann et al., 2015), this study was focused on the perception of churn signals by the supplier organization, more specifically the key account manager's point of view. A dyadic approach where the customer's perception of churn signals and how they are sent out is considered as well could provide more insights into the effectiveness of the methods currently used. While direct communication was most often mentioned as a method to detect churn signals by the respondents of this study, including how clients send out signals could help in analyzing how effective this method is.

The first limitation of the research stems from the sampling technique. Snowball sampling is a convenience sampling technique, which can lead to selection bias and "a lack of external validity, generalizability, and representativeness" (Parker & Geddes; 2019). In this study, the selection bias resulted in mainly male respondents and a majority of respondents active within the IT sector. To increase the generalizability of the research it could benefit from a sampling technique that results in more random samples. Quota samples might also decrease the selection bias. The quotas could be based on the different sectors in the Belgian market. The heavy focus on public companies within the sample could have distorted results as well. The public procurement laws in Belgium partially take the churn decision out of the hands of the buyer organization. A sample should therefore strike a balance between organizations that mainly supply public entities and those that focus on private organizations. Only one of the respondents worked in a product-focused organization, the others mainly worked for service organizations. An ideal mix of respondents would be segmented based on private vs public, services vs products, and the different sectors in Belgium. Repeating the research with a quota sample could allow the detection of differences in approaches based on the three variables mentioned previously. The internal validity of the study could have also been increased by solely focusing on service companies in the IT sector. One might assume that the use of big data would be larger in the IT sector, one of the respondents even mentioned that they were a supplier of CRM systems, and it would therefore be unusual for them to not make use of these systems. However, others within the sector used no company-wide tools to detect churn. Future research fully focused on the IT market and the determinants that lead to the adaption of churn detection tools could therefore be interesting. The snowball sampling technique was used in the interest of time since a large number of respondents had to be collected in a relatively brief period of time.

The respondents mainly used direct and indirect communication methods to detect signals of customer churn. Changes in tone were often mentioned as a sign of relational decline. Further research on the effectiveness of sentiment analysis to detect churn signals within the B2B environment to aid practitioners could be valuable. Sentiment analysis has already been studied as a method to measure customer satisfaction (Capuano, Greco, Ritrovato, & Vento, 2021). Sentiment analysis could support KAMs and accelerate the detection of churn signals within direct communication. Currently, this sentiment analysis is oftentimes done by individuals instead of tools, switching to tools to automate this process could potentially free up time that could be more effectively spent elsewhere. This tool could also aid when supplier complacency has blinded the key account managers to the signals of relationship decline.

The focus of this study was on key account managers to decrease the situations where an account manager would prefer a customer churning over retention. Smaller accounts affect organizational revenue to a lesser degree and are sometimes not worth the resources needed to retain them. However, researching the differences in approaches within a focal organization between KAM and account management might lead to different results when it comes to the tools used to determine churn. The direct communication relationship-based way of churn detection applied by key account

managers is unscalable to larger client portfolios. Respondents with larger client portfolios mentioned how the segmentation methods they used within their portfolios to determine the amount of direct contact. Investigating the different detection methods used across an organization and their effectiveness could aid organization to create the most resource effective churn detection system. At the same time it could be interesting to study whether the differing levels of attention that come with larger client portfolios significantly effect the churn rate within these portfolios.

The adoption rate of extensive churn detection methods was next to nothing in the sample. Larger scale qualitative research to uncover the extent of tool use within the Belgian environment could provide a clearer view on whether this was a result of selection bias or a common phenomenon. While an increasing focus within churn literature has been on prediction models and the use of big data, and the focus of this research has also shifted to the B2B environment, churn detection and prevention was mainly done through relational management by the respondents in this study. relational management.

One item for future research could be on the implementation of nudges to increase the tooling use within key account management and whether these investments are profitable in the Belgian context. During several interviews, it was mentioned that some account managers are opposed to certain forms of information sharing, either because they are time-intensive or increase the account manager's importance in the organization. The acronym GIGO (Garbage In, Garbage Out,) is oftentimes used when talking about data analytics. To get high-quality, relevant insights from data analytics, high-quality and relevant data has to be put into the system. To fully reap the benefits that researchers believe come with new systems built from big data, an effort needs to be made to convince practitioners to implement these systems and properly input the necessary data.

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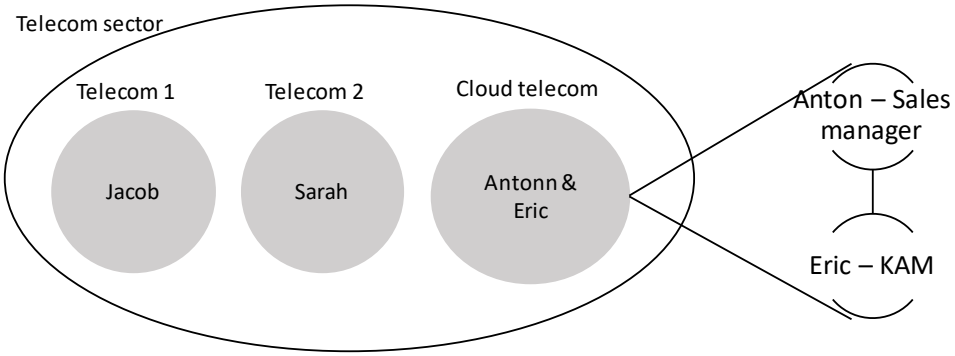
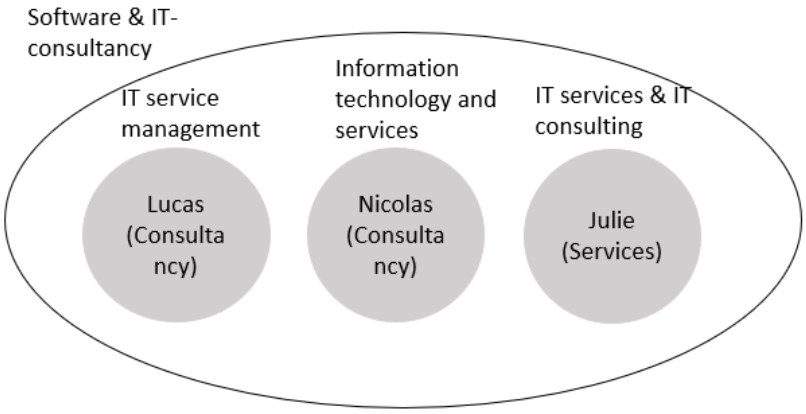
Appendices

Appendix 1: Relevant connections between respondents

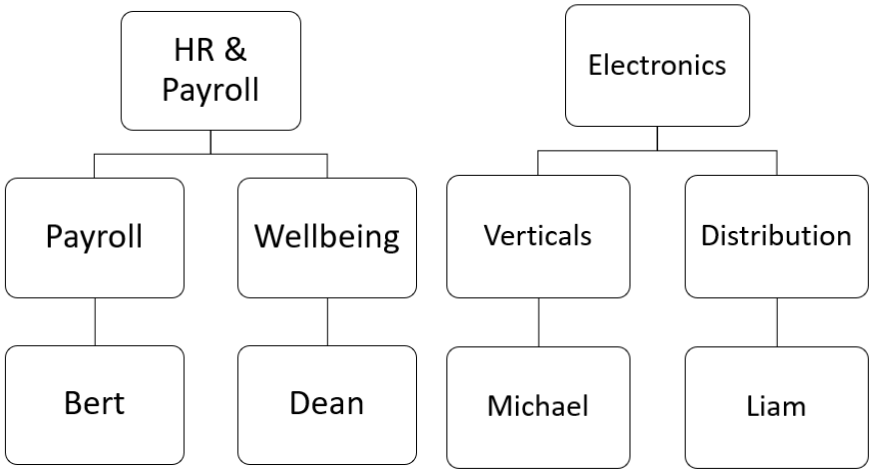
Telecom competitors + cloud communication co-workers



Software & IT-consultancy competitors



HR & payroll company + Electronics company connections between co-workers



Appendix 2: Original topic guide

Introduction: Ask the respondent if they remember what the subject of het research is. If the respondent is unable to explain, then explain that you are doing research for your thesis at the UGent. Tell them that you are interviewing Key Account Manager to figure out how they detect signals of customer churn. This means that you want to know which signals show to them that a customer might be planning to churn beforehand. After this explanation you explain that after the interview you will transcribe the interview, but this transcription will be made anonymous. Their name and the name of their organization will be removed and so will be any specifics that could give away the organization like client names, etc. Then ask for consent in order to record the interview.

What does you experience as key account manager look like?

- The length of employment
- In what kind of organizations
- In which sectors
- What do the customers look like

How would you define customer churn?

Which actions do you undertake to avoid customer churn, if any?

How do you know what customers to focus on with retention offers?

What are in your opinion signals that a customer might wish to discontinue the relationship?

- How do they detect these signals?

Could you give examples of the past where you

- Spotted certain signals?
- Missed signals and were made aware of them after a customer churned?

How do you track information about a customer showing the intention to churn?

Appendix 3: Final topic guide

Introduction: Ask the respondent if they remember what the subject of het research is. If the respondent is unable to explain, then explain that you are doing research for your thesis at the UGent. Tell them that you are interviewing Key Account Manager to figure out how they detect signals of customer churn. This means that you want to know which signals show to them that a customer might be planning to churn beforehand. After this explanation you explain that after the interview you will transcribe the interview, but this transcription will be made anonymous. Their name and the name of their organization will be removed and so will be any specifics that could give away the organization like client names, etc. Then ask for consent in order to record the interview.

What does you experience as key account manager look like?

- The length of employment
- In what kind of organizations
- In which sectors
- What do the customers look like
    - How to define a customer as big?

How would you define customer churn?

- Contractual vs non-contractual relationships
- Figure out if they are talking partial churn, full churn, etc.
- Current churn rate

Which actions do you undertake to avoid customer churn, if any?

What are in your opinion signals that a customer might wish to discontinue the relationship?

- How do they detect these signals?
- Are there tools within the organization to detect these signals?
- How are signals shared internally within the supplier organization?

Could you give a step-by-step example of a situation where you spotted signals of customer churn and where able to prevent churn?

Could you give an example of a situation where a customer churned and you did not spot any signals beforehand, but afterwards certain signals that you missed in the past became clear to you?

Is there any information on churn and detection of churn signals that come to your mind and you have not yet been able to share during the course of the interview?

Appendix 4: Translated Quotes

Jacob	"Good agreements make good friends" "I have an expectation pattern towards my client, but my client probably also has an expectation pattern towards me" "The churn numbers are currently under control. This has to do with the economic situation. What do I mean by that? These are covid times. Today organizations are looking to pay less but get more service. If you are able to adapt, then it's usually fine. Plus, covid times make it so that organization are more risk averse to change to a different telecom provider, because they know that if they have to switch this requires a lot operationally." 'Churn, I dare to draw the general line that the criteria price determines churn for a large part. Regardless of whether you did your job well, that you provided good service." "It has to do with experience level, in my opinion. I think that a starting salesperson with us will be challenged more on those kinds of things. So, the expertise level that you take with you will decide in part whether a client can surprise you in a certain domain." "The team of people that you have around you will in part decide the level of proactivity or reactivity. And if my colleague who does the day-to-day check-up doesn't inform me in time about a certain issue that is not resolved in a timely manner, then I will automatically end up in a reactive state."
Michael	"I try to make a sort of contact plan, to see the large clients on a regular basis, the really large ones, depending on whether there are projects this can be daily, weekly. If there is no project, then I try to do that once a month, sometimes once per quarter, it depends a bit. That you kind of have a sort of contact plan where you decide for yourself okay now it is time to call that client again. I don't have a, how should I put this, no formal agenda, but I do have a list of clients that I look over every now and then to say, it's been a while since I saw them and then I call them." "A client it's as if that is a single person, but that is not the case. [..] In large organizations like [examples] you have a whole group of people who are involved. […] So, depending on who the involved parties are, you will have to influence different people." That is the difficulty, which is the difficulty to, because those clients, some clients I know very well, other clients I know from having a few contacts, so I don't know

	what the internal power relations are. […] It might sound weird, but usually this is true, that some people have more to say in an organization than others. It could be that someone has been there for 20 years might have more influence and more power. Then it is important to identify who really has decision making power or who can influence, who can influence who. And that is the difficulty as account manager, to map this. How longer you know the clients, the better you know the client, how easier or the more you hear this by talking to different people that you hear this or that you pick this up. But if you only visit that client once or twice than you don't know this. And that is then yeah, that is not always clear, then you sometimes sail blindly as a key account manager." "We have to say, I'm not solely responsible for a customer. I have a whole arsenal of people, the office staff with [organization]" "It's mainly there [at informal moments] where that [a customer considering a competitor] is discussed. It's not in the formal meeting with 6 people where they say that they are talking with the competitor, that isn't said there. That is said, where is that said? That is said at the table, during soccer. In the way of being careful because they are talking with them and them. Or we have those and those problems, or I don't know what. There you discover in a different way, in informal way, a lot of things." "The principle behind detecting your relationship, churn or if the customer is going to change, to do this you need -generically, unrelated to the business- you need a lot of contacts. All levels, informal, formal to create and follow up on a trusting relationship." "When you change contact person or key account manager, a lot of knowledge gets lost, at least a lot of knowledge that they account manager has from contacts that are informal. That is hard to write down […]. That bond of trust is lost when you handover to a new account manager."
Bert	(Question about clients re-entering the market every 3 years) 'Yes yes, actually that is to challenge, they do that mainly to challenge. Because at a certain time it becomes an automatism. Like the customer I mentioned before that has been with us since 1985, at a certain time you think that we have a good co-operation and then you mainly give attention to the customer who challenge you. The ones that say I don't agree and then you focus on them. But the customer where it is going well, the chance is big that you say that goes well, I'm going to give them less attention. So oftentimes customers will challenge you to say hey I am here as well, be careful, I'm going to ask other parties to come by. Then they will challenge you on one end to sit together more with them to think together, to give them more attention. But oftentimes also to challenge the price because price is under pressure."

	"Or clients that, we have a very important client who is going to come out with a joint venture [soon]. … We actually knew about this a month beforehand through data scrapping, so it really works. The artificial intelligence exposes things." "That is why we try to contact different levels. It might be that our direct contact is very satisfied, but the DMU, the person that decides with which organization they will work together, the decision-making unit, that they say that they are not so satisfied, because they believe it can be more efficient. So, it is important to have a voice in all those different layers and to gather that feedback and then consolidate that information here to say, okay is this right?" "So that feedback [from events] has to come to us, so that is bottom up and top down that we share that knowledge. We have system for that … which is also where we do surveys. Where we collect those satisfaction measures. We also have a CRM system where we log everything from the customer. So, every interaction we log, every opportunity with that customer we log, all service meetings we all, all tickets and we also have a client file. It's actually in that client file that we save all this information." "Sales navigator […] there you can follow up clients. It's based on AI, so what Sales Navigator does is, they have access to a lot of data through LinkedIn […] And through data scraping they are going to make models of a customer. Every morning you get a communication about that client, an email in your mailbox that says look this happened today and that could lead to that strategical change. We follow that continuously, the moment that a signal goes of there we go to the customer and ask them what is your strategy about this. Or clients who, we have a very important client that is going to come out with a joint venture next month. […] We actually know about this a month beforehand through data scraping, so it is actually accurate. The AI unveils things. And afterwards the clients confide in you, look nobody can know this but we are going to do a joint venture in the Belgian market." "I have to say that tooling wise, the support tooling wise to detect something like that [churn] is almost non-existent. It gives you a guide, but it's mainly the conversation. It's still people who work with people. And oftentimes you will get a negative message, but you have to see that in the context where they said that and with whom. Sometimes it's positive, but it has a negative edge. But it's actually by entering that conversation that you know okay there is an alarm bell here." "Barking dogs seldom bite" "A system is only as valuable as the data you put in"
Thomas	"We had a period where; we are not the cheapest and sometimes you actually see movements [switching behavior] when things are going badly economically with certain businesses. If they say we need to save, so how are we going to save on

	printing? We are going to include other parties, then you see someone leave for 5 years, but usually they come back after five years." "Every account manager has their own way, their own style, their own way of working. I mainly work on trust and relationally. […] Truly working on that trust and building on that and such things. And you have to be sincere and honest, because eventually you will be exposed. That is my thing, that is how I work. And that is working constantly, calling constantly, have contact constantly and if something is going on reacting immediately. Not letting things lie when one of my colleague's drops the ball, that happens sometimes. Trying to catch that and trying to solve that and such things." "Oftentimes that [someone dropping the ball] comes to me through the customer, a certain annoyance is created there and then we are lucky, because we can intervene and then we can move on. Sometimes it comes through our own services: hm something is going on there, not with your contact but a way lower level and then we have a problem. Because the moment that someone there is totally unsatisfied and they contaminate the whole group there, then it is difficult to turn the situation, because the perception is bad." "Usually, they tell you honestly. Usually, they put it more strongly than they intended to. Off course when something is going badly then they are more negative than the situation really is. Then you have to correctly gage what is going and do something with it." "I recently had such an occurrence that went out of hand, with a long-term customer. And suddenly one thing after another went wrong. […] And then you hear the tone of that customer change, that the tone of the email's changes. What used to be hey [Thomas], suddenly you get dear [mister last name] and in that way you have to filter. Then you have to react and try to change things. It's usually in that way, more the passive communication. The trouble is that we couldn't go to customer anymore [due to covid]. So, we didn't have the body language anymore, lately. Some things got lost due to that, but it wasn't too bad." "Now we have noticed that more and more, that with large customer more certain decisions are being made on a European level of even a global level, which means that your approach has to be totally different. I have customer who actually have to listen to headquarters in Sweden or in the USA, and so forth. You have a relationship with them, but that is where it ends. Because they don't make any decisions anymore. Customer where they make decisions themselves, there you can go all out. Because when I lose customers lately, then it is mainly because the contracts are worldwide, and they have less of a feeling with the local story."

	"What usually happens, I've had this happen a few times, is that my contact with IT is very satisfied and wants to continue. And the moment that the contract nears its end the purchase department only looks at the financial aspect. And behind their back or maybe they know, but they assume that it won't turn into anything, they talk with the competition. And the purchase department will close a contract before we, that happens behind our back and that is painful."
Eric	"It's a bit like with a significant other, one significant other needs a lot of attention, the other significant other needs little." "An IT manager, where you have a good relationship with that company and the IT manager went for you personally and that IT manager goes to a different company. Then you have to find a new IT manager there somewhere. That is sometimes starting over again relationship creation wise, and it might not click and that can be a reason for him, the reason that he switches. Or that he had a good relationship from his prevision position with a competitor of us and that he says I as new IT manager will take that competitor with me." "That [signs that things are going wrong] can also come from other layers. But I'm telling you, when the moment comes that they really want to change, then the higher management, a CEO or a CIO will reach out. But then it has come very far in the process. Then they are really considering changing. Usually, the first signals come from the IT team manager. Those are the people that give the first signal." "Takeovers by another company for example. But that is also something they we hear in the media or from them." "We did not know that their bond was that close. We know that there was a bond, both in that world or those people they usually have a bond with someone somewhere. So, then it is dependent on heavily that ways in. At that time, we had some problems and when those problems came the client said: 'Look I only work with them because it worked well and not because there was a bond, because I have that bond with someone else. Bu if it doesn't work well anymore, then I will just pick the person that I do have a bond with." "I had one customer […] where we did an installation in […] that went wrong. We had a meeting with the IT manager, but suddenly the IT manager included the IT director during the meeting. Where the IT director that had only been there for twee weeks told us: 'Look guys, this is you last change. You have to start fixing this or we are gone, and we will cancel the rest of the installation.'" "That is possible [that a client churn because the KAM leaves the organization]. If the relationship with the salesperson is so good, that that person, that IT manager

	or CEO, that they actually signed for you as sales with [company]. If you go away, then the client might say well my contact point is gone, and I have no more contact with anybody there or they don't take it over. Then the customer might leave."
Anton	"As KAM my experience has mostly been that clients are no longer just clients, they are becoming partners. As a person, a KAM has to be able to work with that company, as if you are a part of that company." "A person is just a person in the, in the end people still work with just people." "Communication is key. If you want to discover any churn it will be by communicating and the communication has to come from you, not the client." "A bit like attack is the best defense if you know what I am saying. It is also the case that the people in our teams need to know the client needs on time [before they bring it up]" "If the customer has no relationship, definitely key accounts, they need to have a relationship with you, they need to know that they can count on you, they have to be able to trust you and trust has to be won, you don't just get it because of the [company reputation]"
Jonas	"I think that an important given of a KAM is transparency, honesty and flexibility" "At the moment that is less, because our sector does not really lend itself to do a lot of marketing. But in the years to come, with the digital era that is on the way there will be, marking will be more and more important to do that." "To draw a comparison to private life. I've always been a football player, and I always had a trainer that said to me, the moment that I don't yell at you anymore, that is the moment that you have to be worried. Because he doesn't believe in you anymore, he feels like whether I yell or not, whether I coach or not, it doesn't matter anyway." "If you notice that a certain company, this happens, starts running tests with the competition. The competitor is certainly someone that likes to communicate about that, to say look we have a new client or we are running tests there." "It's not that we have a kind of satisfaction barometer with everyone client with a little man, like oh he is red oof, got to be careful, no. It's a bit gut feeling and a bit knowing how you customer work."
Liam	"That [the regularity of contact with clients] depends once again on the size of your portfolio. I now have with [electronics company] 3 customers, so that is every weak, multiple point of contact with those 3 different customers. With [ex employer] that was a bit different, there I had a portfolio of 45 customers, so what

	was very important there is that dependent on the size of you customer you are going to decide how often you have to contact them." "You have to make sure that you have contacts on all those different levels. And hope that that information comes to you that way. So it could be that your own contact, that he gets that information and gives it to you. It could also be that you have to receive it directly. Sometimes it happens that you are kept in the dark for a long time." "Clear signals are, for example that a lot of problems come up that were never problems before and that feel a bit, how can I say this, fabricated. […] A second one is that you contacts are way harder to reach. […] If someone suddenly comes with new technology or other products, then it could be that they talked with the competition and usually you do recognize okay they come with this idea, they talked to that competitor because they are really focusing on that at the moment." "With [company], [company] grew really quickly in the four years that I was there, they grew really strongly and took over a lot of different parties. That made it that certain customers said you guys are no longer the same company that we signed with 4 years ago. You have become bigger, less flexible, so we are going to go for another small party again." "So yeah, what they say is not always the real reason and oftentimes price is used as a problem, but often it is not really the problem. Often it is the pressure from on high that makes it so that they have to choose for someone else or they actually found a better solution compared to what you do at the moment."
Sarah	"A customer remains a customer, it isn't because he is a customer today and not tomorrow that he can't return the day after. And it isn't because he is gone that that person is suddenly less valuable" "I think that it isn't because today you work for, that you are a sales person for company A that you don't have to know you concullega's, because I think that you have to know the competition very well. Because if you don't know them, then I don't think you are a good sales person and then your churn risk is way higher." "And we thought that it was in the bag, but that wasn't the case. A really important thing that we missed was that they were still under contract with their current telecom operator, with [competitor] for a year. But they were willing to break that contract, however, the person who said that they were willing to break the contract was not the person who could decide that. While we, from the beginning, believed that this was the case. But that question was never asked, it was an impression that we had."
Lucas	"We have to be honest, not every client is waiting on it [surveys]. That is then a question, a survey where that next, next, next, and then what do you think of this and of this."

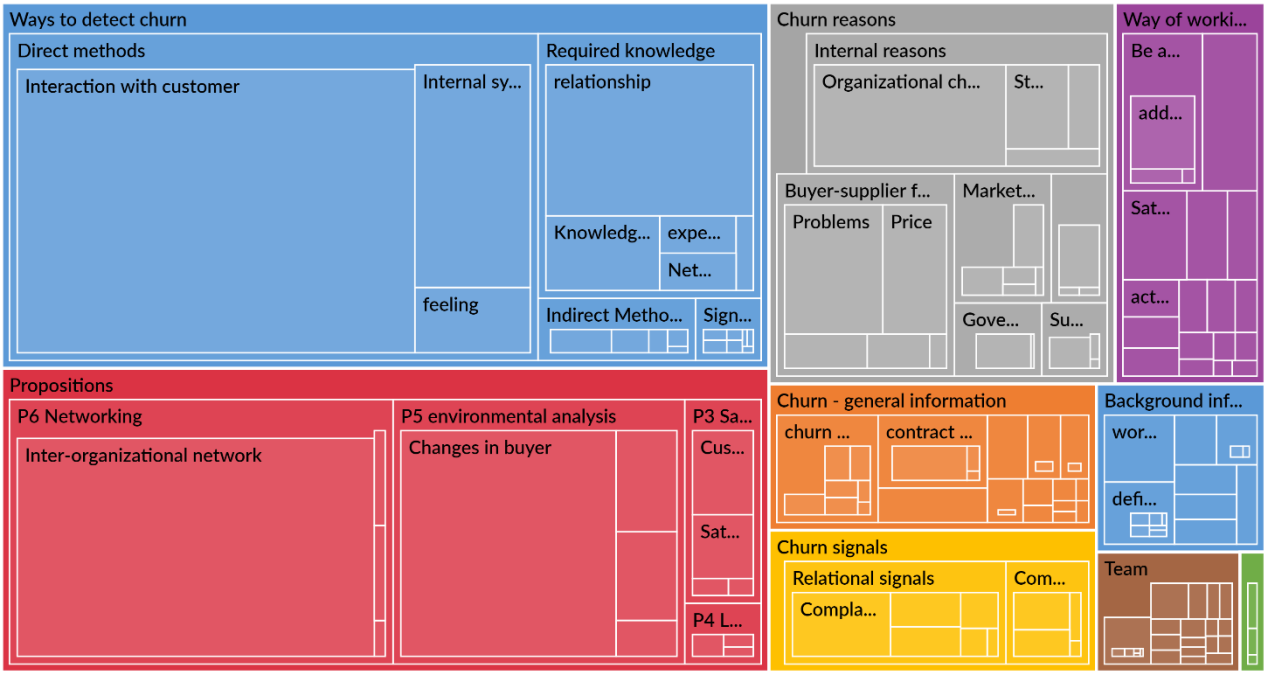
	"It's not only the account manager of the KAM, the directors also work in it [satisfaction]. […] An entire team is working on that, and everyone does the right things from within their own function."
Dean	"No tool can replace the human relationship. Luckily luckily otherwise everyone would have the same provider, so to speak. So, people still make the difference" "But more and more we now also come in contact with finance people and also with purchase, and sales and purchase are not always the best of friends. But we need to be able to deal with them, … with a previous employer we followed special courses for that, on how to negotiate with those kinds of people." "After certain big projects that we have executed with customers we send them [surveys] out and we gauge the satisfaction about how the partnership went or how the project went, and we get a lot of information from that. That is something that I have seen over a period of 5 years, how people suddenly really want to give feedback and give answers, it's phenomenal."
Noah	"And that is in my opinion the task of a key account, a key account has to know the client organization better than their own organization. They perfectly have to know what is going on in that organization." "You have to know the reason, yeah? That is important. And that reason will always be in a relationship with the organization that changes." "That is a bit the problem that you have with reports, putting a sentence in the CRM system. If the KAM just puts that sentence in the report and takes no further action, than he is not doing a good job.' "So that is important, that the relationship remains qualitative. If you only see that customer every 3 months of every 6 months, then they won't think about u. You won't be top of mind"
Arthur	"Most customer switch for half a euro."
Nicolas	"Oftentimes customers look more at what are you doing with me and [organization] can be putting on bad project everywhere else, as long as it goes well with them, they do not care." "A lot of feeling, a lot of talking with customer, that is very, for us it is difficult to quantify how to handle churn, while in other sectors you can track this, in my opinion. So, I think that, if you talk to different organization, that you will notice this, in my opinion. And that makes it so that the story that I am telling, you feel it there. It's a lot of person contact, talking to people, that is very important in this sector."
Julie	"Trust arrives on foot and leaves on horseback"

	"The news on one end, following the news. But also, mainly interacting with your customer." "No, we don't have one consistent tool for all the account manager or the entire teams where matters can be consolidated. That doesn't mean that that information is lost, because the account management can captivate certain matters and pass them along internally, potentially on management level. So, I myself make my own notes about that per customer that I have, and I bundle that information and I notify the necessary parties when needed. "Now with customer where we don't have that [service delivery manager] it's a bit more difficult, because you don't have those monthly meetings, or you don't have different people who can keep their finger on the pulse every." "So, I had a customer where we did everything and something ne come in and they wanted to change everything. We lost a lot of business there. Now, this was a customer where I had a hard time spotting signals. I didn't know that person well. So, what happened there is that we did everything for years, suddenly someone new came at the helm and suddenly we did next to nothing. Because they, everyone comes with baggage. So, they come in with baggage and sometimes other parties are in that baggage" "To start, the IT world is a small world, so I know people everywhere. Also, concullegas, from competitors. So sometimes I hear it that way." "Public companies are always subject to the Public Procurement Law. So, if you have worked with party X for years, it might well be that after the duration of the contract than you have to do a RFP, you have to publish a public tender. And you can write it towards a certain partner, but you are never certain how it will end. While in private companies it is way easier, there you can just keep working with that party and that's it."

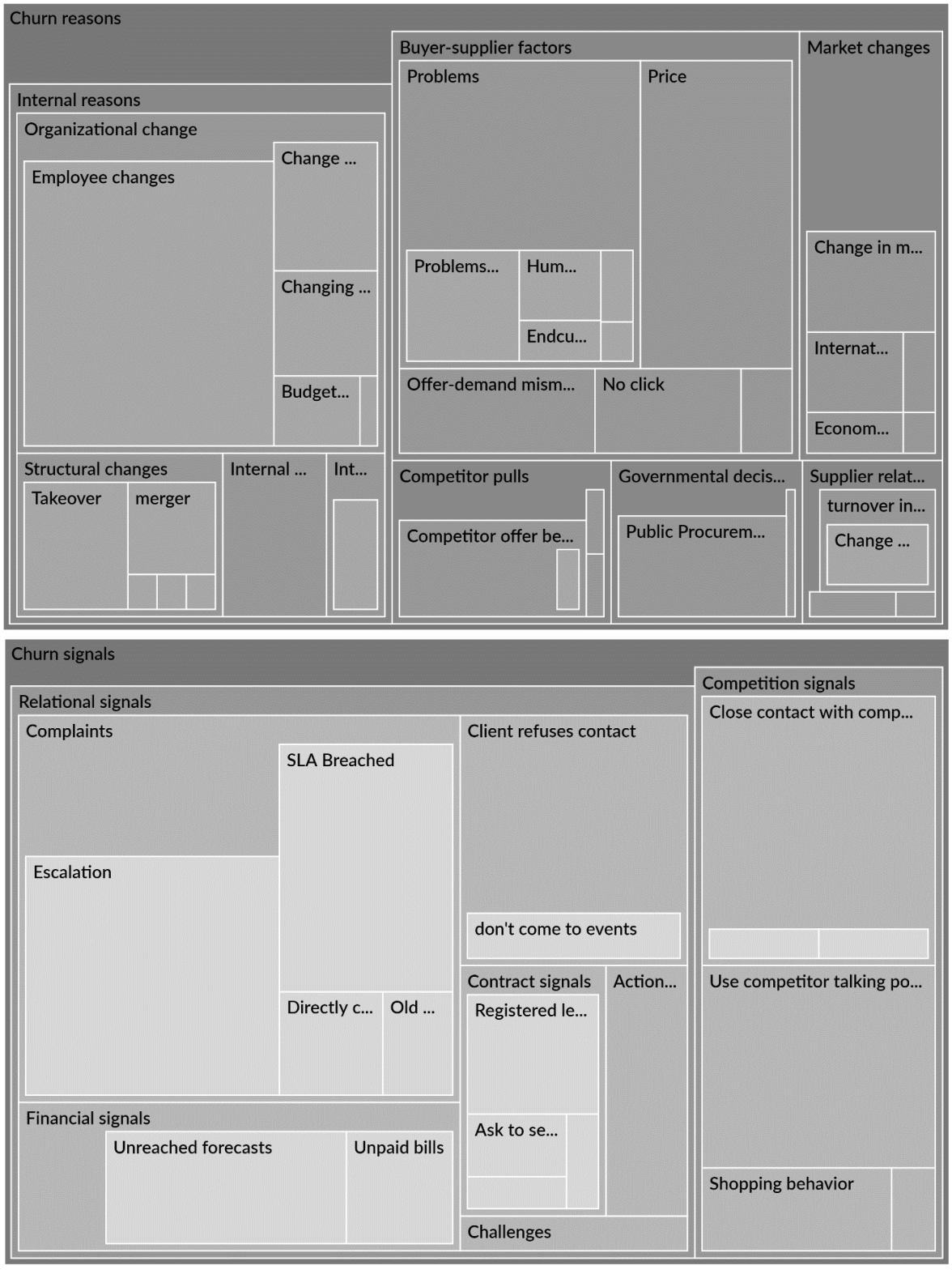
Appendix 5: Link to interviews

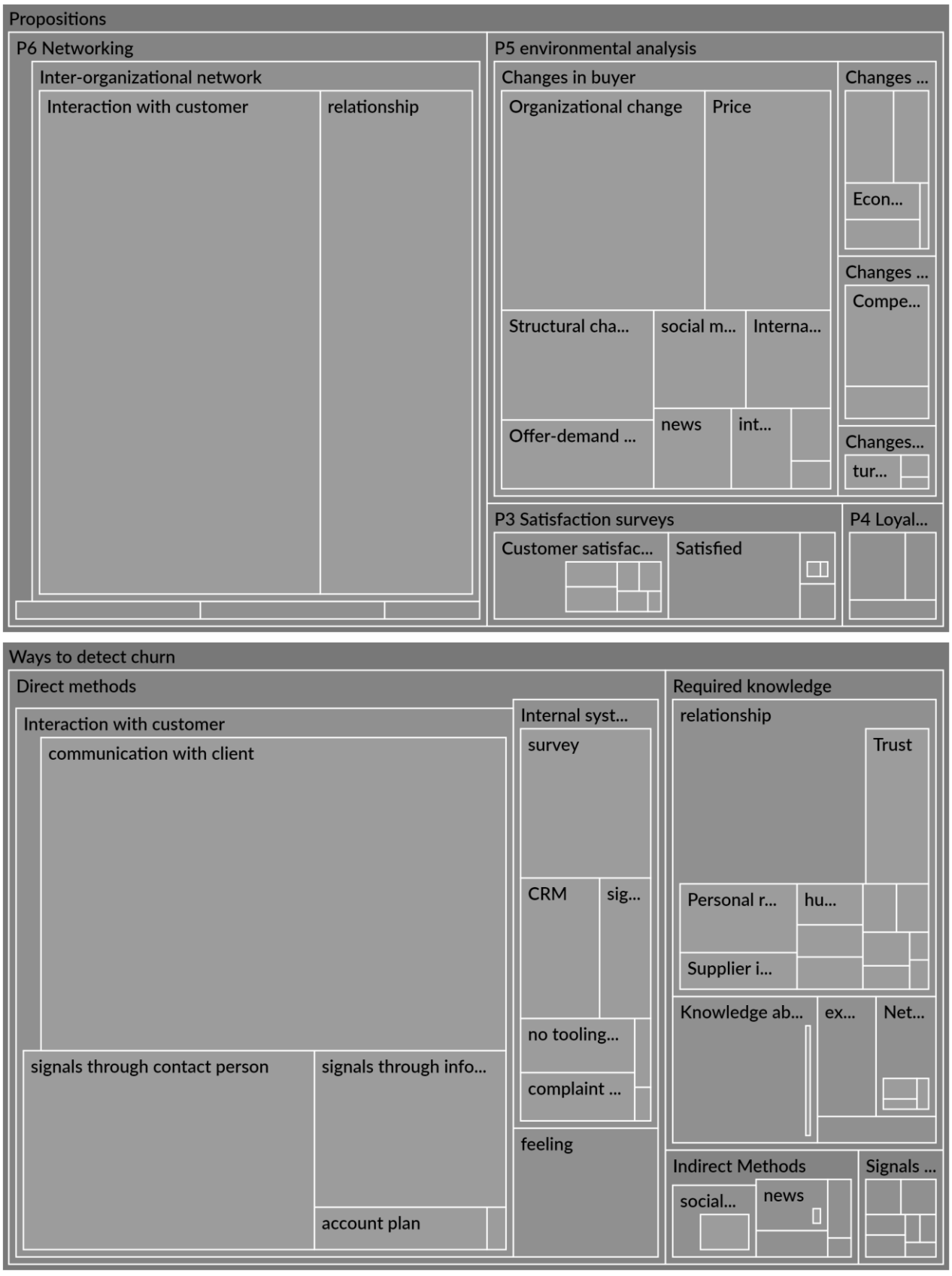
Interviews

Appendix 6: General hierarchy of codes chart



Appendix 7: Detailed hierarchy of codes chart




Propositions
P6 Networking
Inter-organizational network
Interaction with customer
relationship
P5 environmental analysis
Changes in buyer
Organizational change
Price
Structural cha...
social m...
Interna...
Offer-demand ...
news
int...
Changes ...
Econ...
Changes ...
Compe...
Changes...
tur...
P3 Satisfaction surveys
Customer satisfac...
Satisfied
P4 Loyal...
Ways to detect churn
Direct methods
Interaction with customer
communication with client
signals through contact person
signals through info...
account plan
Internal syst...
survey
CRM
sig...
no tooling...
complaint ...
feeling
Required knowledge
relationship
Trust
Personal r...
hu...
Supplier i...
Knowledge ab...
ex...
Net...
Indirect Methods
social...
news
Signals ...