

AN ANALYSIS OF ANTI-MONEY LAUNDERING IN THE GERMAN NON-FINANCIAL SECTOR

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ABSTRACT:

A typical preventive forensic service offered by large audit firms is the support of corporate anti-money laundering activities (AML). This study examines the current state of AML in the German non-financial sector (non-FS). Unlike the financial sector, it seems to lack thorough AML mechanisms despite extensive regulation. Using grounded theory, a comprehensive framework of AML in the non-FS is developed, based on semi-structured interviews with managers from eight entities. This qualitative study reveals that the level of AML is heterogeneous within the German non-FS. At the same time, both a sound interpretation of the regulations and guidance by the regulatory authorities are missing. Based on the framework, a survey-instrument is developed to assess the level of AML for non-FS companies. It is instantiated with respondents from eleven different entities and four hypotheses are developed as a potential starting point for future research. For practice, the findings imply that the non-FS should develop a more thorough and standardized approach towards AML, ideally in collaboration with the regulatory authorities. For theory, the framework and the survey instrument both contribute to a better and more comparable understanding of AML, especially outside the financial sector.

Keywords: Money laundering; AML Directive; grounded theory; non-financial sector; forensic services

I. INTRODUCTION

Recently, the fourth Anti-Money Laundering Directive of the European Union (DIRECTIVE (EU) 2015/849) reemphasized the responsibility of both the financial and non-financial private companies to contribute to the combat of money laundering.¹ Money laundering is a border-crossing issue and a crucial business procedure of organized crime (Gelemerova 2009). Its global magnitude is assumed to be as high as five percent of the global economic output (Camdessus 1998; UNODC 2011). While in Germany, money laundering is assessed to account for 100 billion Euros and growing, 20 to 30 percent thereof is laundered in the non-financial sector (non-FS, Bussmann and Vockrodt 2016). At the same time, anti-money laundering activities (AML) are underdeveloped in the German non-FS (Bundeskriminalamt 2014). This undermines international

¹ In this paper, the term money laundering also refers to the financing of terrorism.

efforts to combat money-laundering as AML can be effective, but only when it is implemented holistically (Chong and Lopez-De-Silanes 2015). While the financial sector combats money-laundering with increasing success, money launderers are not shy to adapt and move on to launder their money with the use of the non-FS, thus hindering holistic AML (Choo 2013; Unger and den Hertog 2012).

As the available literature on AML in the non-FS is scarce, the present paper seeks to explore the current state of AML in this sector, taking German non-FS companies as an example.² Thereby, the following research questions are addressed: What is the current state of AML in the German non-FS and what problems do companies face? Which factors determine AML best practices and how can they be measured?

The research on hand comprises two steps. First, semi-structured interviews with managers in charge of AML of eight large German manufacturing companies were conducted. With grounded theory, the results were coded and a comprehensive framework was developed which identifies determinants of effective AML and its development. In a second step, a survey-instrument was derived from the framework to provide a quantitative measure for AML of a non-FS company. The survey-instrument was then instantiated with eleven companies from the German non-FS to assess its applicability.

Based on the empirical results, four hypotheses regarding the current state of AML in the non-FS were developed to be tested with larger samples in the future. First, it is assumed that a minority of the companies have sufficient AML. Second, the existence of an AML-officer increases AML. Third, AML differs among industries. Fourth, a number of company characteristics (cf. sect. IV) moderates the effects on AML hypothesized in the first three hypotheses.

This paper has several contributions. While some results have to be interpreted in the context of some specific German regulation, the paper overall is of interest for the international combat of money laundering as AML is a cross-border challenge and the interviewees were all representatives of multinational companies with cross-border operations and the need to apply a company-wide coherent AML-regime.

For practice the paper provides evidence that a more standardized and thorough AML for the non-FS should be developed. To do so, the regulatory authorities should contribute, at least by giving more detailed guidance for the practical design of AML. Key factors for a guidance and development of a more thorough AML are provided by the presented framework. This contribution also applies to the regulatory authorities. They should take into consideration that non-FS companies, especially large multinational companies which were the subjects of the present study, need special guidance and attention for the combat of money laundering as they are subject to unique challenges which differ from challenges faced by the financial sector and by small non-FS companies. Further, we provide evidence that the current enforcement approach does not exert sufficient pressure on multinational companies to establish thorough AML.

For research, this paper provides informative insights in a so far scarcely researched area. With the framework and the associated survey instrument, a tool

² The research on hand was conducted with a focus on “persons trading in goods” since the participating companies fall into this sub-category of the non-FS. Therefore, the term non-FS is used throughout the paper although the narrowest findings only apply to “persons trading in goods”.

for analyzing this area more broadly in a comparable way is provided. Last but not least, the developed hypotheses provide a clear avenue for future research while the framework is a helpful instrument to conceptualize such research.

The remainder of the paper is structured as follows. The next section provides the background for the study, especially from a regulatory perspective. Section III describes the method and Section IV discusses the results. The paper concludes with Section V.

II. BACKGROUND AND EXISTING RESEARCH

While money laundering can be defined in multiple ways (Unger et al. 2006), it is depicted in a clear way by the three stage model of the U.S. customs and border protection. In the *placement* stage, illicit funds are converted to legal funds within the financial system, mainly by converting cash into book money. In the *layering* stage, a complex web of often border-crossing transaction is used to conceal the origin of the funds. During *integration*, the now legal-seeming funds are used to invest in either illegal or legal operations or in consumption. In short, the fourth AML Directive of the European Union defines money laundering as any activity or attempted activity related to this model (Sect. 1 Art. 1 #3).

The German AML legislation, under which this study was conducted, is mainly shaped by three institutions. On an international level, the Financial Action Task Force (FATF) sets the tone for high standards of the international combat of money laundering. With its mutual evaluation of the member states, it exerts pressure on the assessed countries to comply with its 40 recommendations. With the conclusion of the last evaluation of Germany by the third follow-up report in 2014, Germany is currently evaluated to be largely compliant with FATF's recommendations (FATF 2015). However, minor issues remain, *inter alia*, with the supervision and guidance of the non-FS.

In Germany, federal states are responsible for the supervision of "persons trading in goods"³ and the modality of the supervision varies greatly (FATF 2015; Bussmann 2015). Supervision is a major issue for the non-FS because of the shortcomings regarding the guidance for application of the regulations as well as the enforcement of the regulations resulting in low pressure on obliged companies (cf. Sect. IV). Therefore, the present research examines how "persons trading in goods" perceive their supervision.

On a European level, the European Union defines the clear framework of national AML-legislation with its AML Directives. The latest, fourth AML Directive was issued in 2015 and has not yet been conveyed into national German law. Therefore, the present research is conducted based on the prior, third AML Directive.⁴

³ While the mentioned supervision regulation and the below-mentioned cash threshold only apply to "persons trading in goods", other non-FS companies face the same or more AML-requirements and supervision compared to "persons trading in goods".

⁴ However, changes of the fourth AML Directive which have not been anticipated by the German legislator and thus have not yet been in place in Germany when the study was conducted merely influence the studies context. The most severe change is the reduction of the threshold cash transaction sum for which "persons trading in goods" have to conduct customer due diligence from 15,000 Euros to 10,000 Euros. Although this does not change the mechanism of this regulation,

In Germany, major parts of the AML Directive and its predecessors are conveyed within the AML Code (Gesetz über das Aufspüren von Gewinnen aus schweren Straftaten – GwG). While other codifications play an important role for the financial sector, this study only considers the GwG as it is the only AML-related law which is applicable for the non-FS. The key requirements for a non-financial company to comply with the GwG are summarized in table 1 (Bausch and Voller 2014). They encompass the key issues that were discussed in the present research and thus build the foundation of the interview guide (cf. Sect. III).

Table 1 Key AML-requirements for the non-financial sector

Requirement	Short description
Customer Due Diligence (CDD)	For some transactions, especially for cash transactions above 15,000 Euros, companies have to conduct a CDD (know-your-customer-principle). Depending on the risk, there are simplified and enhanced CDDs.
Internal Controls	Independent of trigger-transactions, all companies have to establish risk-based internal AML controls, e.g. <ul style="list-style-type: none"> • Business-/customer-related controls • AML-trainings for employees • Employee reliability checks
AML-officer	For some companies it is mandatory to designate an AML-officer; ⁵ for others it is recommended.
Suspicious Transaction Reports (STRs)	If there is indication for possible money laundering, every firm has to file an STR. An internal process for when and how to file an STR should be defined.

Only little research exists on AML in the non-FS. Some researchers argue that it is crucial to oblige the non-FS to achieve effective AML since money launderers increase their laundering activities outside the financial sector as AML in this sector significantly improved in recent years (Delston and Walls 2012; Ferwerda et al. 2013). While no evidence exists for only the non-FS, a recent study reports that 58% of all German companies claim to have established AML and another 17% report AML in progress of being established (Bussmann et al. 2016). The only empirical evidence on AML-practice in the non-FS is a dark figure estimation commissioned by the German federal ministry of finance (Bussmann and Vockrodt 2016). The authors expect STRs of the non-FS to be twice as many as they actually are which indicates a low level of AML.⁶ As one focal issue, they emphasize positive effects of appointing an AML-officer

during the research, all questions relating to this regulation were asked using the benchmark of 10,000 Euros.

⁵ While the GwG does not directly oblige non-FS companies to designate an AML-officer, it empowers regulatory authorities to oblige all non-FS companies to designate an AML-officer except for “persons trading in goods” who do not primarily trade in high-value goods.

⁶ For “persons trading in goods” the STR numbers are farthest from expectations.

although not mandatory, but find that only one-fifth of the non-financial companies have an AML-officer.

While regulatory requirements are substantial and existing research underscores the importance of AML in the non-FS, related empirical evidence is limited. Deep insights from practice seem promising to evaluate the state of current AML in the non-FS and how it relates to regulatory requirements and their suitability for practice.

III. METHOD

The present research comprises two parts. For the first part, semi-structured interviews were conducted with representatives in charge of AML of eight large German companies during summer 2015 (for descriptive information, see Table 2). The interviews were coded with the use of grounded theory (Glaser and Strauss 1967). Therefore, the sample was composed with the help of theoretical sampling (Bryman and Bell 2011).⁷

Table 2 Characteristics of the semi-structured interviews participants' companies

Employees	No.	Revenue [bn. €]	No.	Industry	No.	Listed company	No.
< 20,000	3	< 5	4	Automobile	1	Yes	4
20,000 – 100,000	3	5 - 20	2	Consumer goods	1	No	4
> 100,000	2	> 20	2	Engineering	3		
				Building	1		
				Diversified company	1		
				Transportation	1		

In the second part, based on the framework that resulted from grounded theory, a survey instrument was developed to measure the level of AML of non-financial companies. It was pre-tested by two companies, which took part in the first part, and then refined. Subsequently, it was initiated with a sample of eleven German non-financial companies which did not take part in the first part of the study (for descriptive information, see Table 3). They filled in a self-administered online questionnaire during summer 2016. In both parts of the study, participants were warranted anonymity. The remainder of this section outlines the details of the research method.

⁷ We made sure that we included different industries, balanced private and public companies, and included companies of the following categories (No. of companies included): established AML (1), AML in the development stage (2), no AML (3), consider themselves as not obliged by the GwG (2). The sampling process was terminated after we achieved saturation after seven interviews (Guest et al. 2006). The eighth interview was already arranged and therefore conducted, but did not add any new concepts (cf. subsect. "Coding").

Table 3 Characteristics of the survey participants' companies

Employees	No.	Revenue [bn. €]	No.	Industry	No.	Listed company	No.
< 20,000	6	< 5	7	Automobile	2	Yes	6
20,000 – 100,000	3	5 – 20	1	Industrial Goods	3	No	5
> 100,000	2	> 20	2	Chemicals	1		
		No reply	1	Building	1		
				Media	1		
				Transportation	2		
				No reply	1		

Semi-structured interviews

The interview guide (Appendix A, English translation of the interview guide which originally is German) was designed based on the review of regulations and literature (cf. Sect. II). It was revised after a discussion with two forensic accounting consultants (the consultants) with multiple-year experience regarding AML. Two revisions were realized during the interview-phase (Horton et al. 2004). The core questions, which were asked to start every interview, explored whether AML was addressed at all in the company and what risks the company perceived to face related to money laundering. Following these questions, the interview guide either assessed how the company dealt with regulatory requirements (if the core questions were answered positively) or explored why AML was omitted, what would change this omission, and whether other compliance activities related to AML (if the core questions were answered negatively).

Interviews lasted between 30 and 120 minutes and were conducted by one of the researchers and at least one of the consultants. During the interviews, a natural conversation was assured and the guide only served as a reminder of what issues should be discussed. All but one of the interviews were tape recorded and transcribed (Horton et al. 2004).⁸ During the interview-phase, a research memo was written which documents all ideas developed during the interviews and the coding process. It was used to inform theoretical sampling, the revision of the interview guide, the coding process, and the development of the survey.

Coding

Coding was performed by the researchers⁹ in three steps (Bryman and Bell 2011; Glaser and Strauss 1967). During *open coding*, every sentence or paragraph of the transcripts was assigned a *concept* reflecting its key statement. This was done for every interview separately within a two-day window after the respective interview. Finally, first *categories* were developed by grouping

⁸ For the other interview, a protocol was written during the interview. The transcripts/protocol were later sent to the participants for confirmation. Only minor changes were necessary.

⁹ The consultants reviewed the coding. Minor changes in wording resulted.

matching concepts. During *axial coding*, a group of interviews was analyzed collectively and more categories were built across all considered interviews. Further, existing categories and concepts were revised or put into different orders. First, relations between different categories were developed. This was done immediately after the first four interviews were coded openly and revised after each open coding of the remaining interviews.

For grounded theory, it is crucial to perform open coding and axial coding during the interview-phase as the initial results inform both theoretical sampling and the revision of the interview guide. The last step, *selective coding*, was performed after the interview-phase and the last axial coding session were finished. All categories were assigned to a concept, multiple relations between the concepts were developed to form a network and closely-connected parts of the network were grouped into *key categories*. During the selective coding, a number of iterations revising concepts, categories, key categories and how they relate to each other resulted in a comprehensive framework (cf. Sect. IV).

Survey development

In order to derive a sound survey instrument and to address special requirements for online surveys at the same time, the questionnaire (Appendix B, English translation of the online survey questions and answers which originally are German) was developed as follows (Saris and Gallhofer 2014). Simple, concise statements were formulated for all elements of the framework (Sect. IV). Then, direct wh-questions were derived from these statements. Questions were revised to avoid double-barreled questions, implicit assumptions and social desirability bias. The latter was mitigated by using self-administered online questionnaires (Kreuter et al. 2008). All answer categories for categorical questions were designed to be exhaustive and mutually exclusive. Additionally, participants were able to add as many categories as desired. For the five-point Likert-type questions, answers of one half of the questions were arranged from low-level AML (left end) to high-level AML (right end) and vice versa (Likert 1932). Questions were grouped as in the framework and thematically arranged from the general to the particular (McFarland 1981). Questionnaires were accessible on stationary as well as portable devices and special attention was paid to specific design requirements for online surveys, such as adding a progress bar.

It took between 15 and 20 minutes to complete the questionnaire. To initiate it, we sent a participation request with a link to the questionnaire via e-mail to 383 different clients from a Big4 audit firm who declared to be generally willing to participate in scientific surveys. We included a similar participation request in the newsletter of a professional association for corporate security.

To analyze the participating companies' AML with the help of the survey instrument, we developed a scoring model which assigns every company an AML-score between 0 and 54. To do so, for every Likert-type question (questions 1 to 22 and 23a),¹⁰ we group answer categories below and above the neutral answer, respectively, and code them with 0 (low level with regard to

¹⁰ Question 23 is only a filter question and is not needed for analyses. Questions 16 and 23a deal with the perception of regulatory and law enforcement authorities by the participants, respectively. Therefore, they are not included in the AML score assigned to participating companies but are analyzed separately. This results in 21 Likert-type questions being included in the AML score.

AML), 1 (neutral) or 2 (high level). For categorical questions regarding AML measures (questions 27 and 28), we assigned the number of mentioned AML measures as the score, resulting in a maximum of 12.¹¹

For further analyses we differentiate the *AML score* into a *risk score* (comprising questions 1 to 5) and a *compliance score* (comprising questions 6 to 14, 27, and 28)¹² since the risk-based principle of the third and fourth AML Directive allows companies with little AML risk to install less AML measures. Note that a high risk score indicates a *low* money laundering risk. Questions 16, 23 to 26 and 29 investigate different influences on the development, deployment and effectiveness of AML. Therefore, they are only analyzed descriptively in order to get additional ideas of how to improve AML and regulatory practice from the companies' point of view. Questions regarding company characteristics were asked to develop hypotheses of how these characteristics may influence the AML score. Interview transcripts, the research memo, and the framework were used to decide what characteristics should be included for these questions.

IV. RESULTS

Interview results

An overview of the framework resulting from grounded theory is presented in Figure 1. It comprises four key categories. The first key category, *money laundering in the non-FS*, groups different categories that underscore that there is a substantial risk that non-FS companies become subject to money laundering. The category "money laundering risk" summarizes risk indicators and ranges from a vague perception of potentially being used for money laundering to employees clandestinely engaging in money laundering to the business' attractiveness for potential money launderers. It was revealed that the risk faced by multinational manufacturers is unique and has to be considered separately from other groups which are obliged by AML regulations. The category "compliance gaps" reveals areas that lack compliance and therefore potentially attract launderers such as missing contract partner due diligence or missing responsibility for AML. Finally, "required action" reflects that many companies are aware that they have to create some kind of AML. This ranges from generally being risk averse to concrete development plans for AML.

The second key category, *requirements of the non-FS*, illustrates conflicting stakeholders' requirements and support between which the company has to balance its AML. "Regulatory authorities" comprises a number of issues which are possible reasons for the lack of AML and awareness of it in the non-FS and which are due to a possibly deficient approach by the regulator. The non-FS laments heterogeneity of AML guidance, supervision, and audits provided by the state authorities and requires the regulator to improve in these areas in order to support AML compliance. Efforts or refusals to set a standard for AML in the non-FS are reflected in "standard setting". Most importantly, "implementation

¹¹ Additional answers that were not included in the given categories were also added. Theoretically, a score of more than 12 is therefore possible for questions 27 and 28 (and thus an AML score of more than 54). However, no participant reached double digits.

¹² The remaining questions 15 and 17 to 22 relate to supervision, standard setting, and the fit of AML to the organization, which fits neither risk nor compliance. They are therefore only considered for the AML score as a whole.

barriers” is a long list of internal factors that inhibit effective AML in a company. Examples for such barriers are a lack of guidance or a lack of awareness for money laundering.

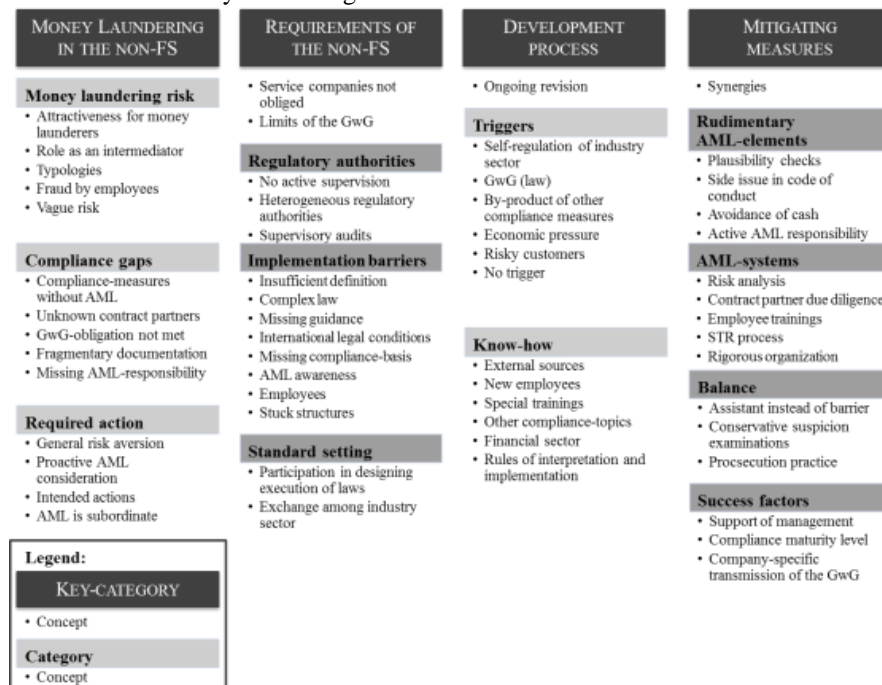


Figure 1 Framework for AML in the non-financial sector

The third key category, *development process* deals with factors influencing the development of AML in the non-FS including an ongoing revision of existing AML. Since the GwG alone apparently lacks pressure for companies to develop AML, “triggers” comprises a list of different aspects that, alone or collectively, led to the development of AML in the interviewed companies. When the choice to develop AML is made, most non-FS companies lack the necessary “know-how” to create a thorough AML system. This category reflects how companies acquired the necessary knowledge and resources in the form of skilled employees to design effective AML.

The fourth and final key category, *mitigating measures*, encompasses different groups of AML-elements and how they relate to an effective AML- or compliance-system, respectively. “Rudimentary AML-elements” lists compliance-measures of companies that were not designed for AML originally, but serve as deterrence for potential launderers, such as avoiding cash transactions or installing a corporate code of conduct. A list of measures specifically designed for AML is presented in “AML-systems”. While most of the framework so far focused on shortcomings which were observed during the interviews, this category captures instances of exemplary AML elements, ranging from a comprehensive risk analysis to a stringent AML organization. Since AML is a low-tier compliance issue for many non-FS companies, they have to find a “balance” between inflated AML disturbing daily business and lax

measures which do not detect any wrongdoing. Finally, “success factors” lists company characteristics which facilitate effective AML.

Survey results and hypotheses

The instantiation of the survey instrument showed its applicability. While only eleven companies participated in the online survey, all participants filled-in the entire questionnaire. No questionnaires had to be dropped because of missing data. Although participants were even allowed to skip questions without any detriment, no participant chose to do so. The limited return rate may result from the sensitivity of the topic and from the fact that many companies lack awareness for AML and therefore may have felt that the survey did not apply to them.

To interpret the results (Table 4), we label companies with less than half (27) of the maximum score (54) as having no established AML since in these cases, gaps outweigh existing structures in AML. The highest AML score is 36 (66.67% of the maximum score), the lowest is 16 (29.63%). The median AML score is 24 (44.44%), the mean AML score is 24.73 (45.80%), both below half of the maximum score. Seven companies score below half, one company exactly scores half the maximum, and the other three companies score above. Regarding the compliance score [risk score], the median is 11 [7] (36.67% [70%] of the maximum of 30 [10]) and the mean is 12.45 [7.64] (41.50% [76.40%]). To sum it up, a low level of AML can be observed in this initial sample. Eliminating the rather low money laundering risk, the level of AML is even worse as reflected by the compliance scores. The risk-based approach generally justifies a risk-tailored AML. However, some companies show a medium level of risk and overall the level of AML is unsatisfactory even for low levels of money laundering risk. Based on these observations, we hypothesize

H1: A minority of the non-FS companies have sufficient AML.

Table 4 Scores of the eleven participants of the online survey

AML score	% of max	Risk score	% of max	Compliance score	% of max
36	66.67%	6	60.00%	22	73.33%
34	62.96%	9	90.00%	16	53.33%
33	61.11%	6	60.00%	19	63.33%
27	50.00%	10	100.00%	11	36.67%
25	46.30%	10	100.00%	11	36.67%
24	44.44%	9	90.00%	15	50.00%
21	38.89%	9	90.00%	7	23.33%
19	35.19%	6	60.00%	11	36.67%
19	35.19%	6	60.00%	9	30.00%
18	33.33%	7	70.00%	8	26.67%
16	29.63%	6	60.00%	8	26.67%

Regarding AML-officers which are considered to be a very effective way to achieve high AML (Bussmann and Vockrodt 2016), only one of the participants

reports to have an AML-officer. Thus, we observe a considerable gap. Although it is not mandatory to appoint an AML for many “persons trading in goods”, a wider spread of AML-officers is believed to greatly improve AML. This is underscored by the fact that the only company with an AML-officer achieves the highest AML score. Therefore, we hypothesize

H2: The existence of an AML-officer significantly increases the level of AML.

Next, it is reasonable to assume that the industry of a company significantly influences AML. The attractiveness of a company depends heavily on the characteristics of transactions, the use of cash, and the characteristics of the traded goods. All of those should be rather homogeneous within an industry and heterogeneous between industries. Results are mixed. While the three *industry goods* companies rank second, third and fourth and the two *transport* companies have similar scores of 18 and 21, the two *automobile* companies rank first and last. Still, they both have the highest money laundering risk in our sample depicted by a risk score of 6. However, among *transport* and *industry goods* companies respectively, the risk score is varying. Despite mixed results and based on the arguments presented above, we hypothesize

H3: The level of AML differs among industries.

Finally, we analyze the characteristics of the companies (excluding industry) to assess whether they might influence the AML score. First, ranking the companies by size measured by revenue and number of employees, respectively, does not reveal a clear tendency. However, most companies of the sample were rather large and the three smallest companies by both measures all score below half of the maximum AML score. Therefore, an influence of the size of a company on AML is possible.

To compare listed companies with non-listed companies, we analyze the three companies scoring more than half the maximum score and the seven companies scoring less than half the maximum score separately. For the top group, two companies are listed and one is not. For the bottom group, three companies are listed and four are not. This indicates a potential influence of a listing on AML which could be explained by higher compliance demands of capital markets.

Companies with a Compliance Management System (CMS) may be able to exploit synergies between existing compliance measures and AML measures to be installed. In our sample, three companies have *not* installed a CMS. None of these companies scores more than half of the maximum AML score. Further, the two higher-ranking companies without a CMS have a very low money laundering risk which leaves their compliance score low compared to their AML score. Therefore, a missing CMS potentially correlates with a low level of AML. Another stimulus for a high level of corporate compliance and therefore a potential positive influence on AML may be the fact that a company has been sanctioned for missing compliance with certain regulatory requirements in the past. For our sample, we identify two such companies. They have the second highest and the lowest AML score. Therefore, an influence of past sanctions on AML cannot be assumed.

Law reflects a correlation of cash transactions and a high money laundering risk (cf. Sect. 3 paragraph 2 No. 2 GwG). Therefore an influence of frequent cash

transactions on AML can be assumed. The only company in our sample with frequent cash transactions above 10,000 Euros has the highest AML score and the lowest risk score (high money laundering risk). Although a single observation only provides anecdotal evidence, an influence of frequent cash transactions on AML can be assumed.

While the support of the regulatory authorities has been criticized (cf. Sect. II) and a lot of criticism has been articulated during the semi-structured interviews, there are two companies who are in contact with their respective authority at least once a year. They have the two highest AML scores. First, this underscores the importance of an effective support of the regulatory authorities for the dissemination of AML. Second, we therefore assume that periodic contact with the regulatory authorities positively influences AML.

As the last characteristic, we analyze the fraction of revenue generated by services (as opposed to revenue generated by goods sold) since a company which is obliged to install AML as a “person trading in goods” pursuant to the GwG has no AML responsibilities for operations that exclusively sell services.¹³ However, one of the companies participating in the first part of the study reported AML measures although it did not perceive itself as obliged by the GwG since well above 90% of its revenues are generated by services. Of the survey participants, two companies respectively generate 100% and 95% of their revenue with services while all other companies have 35% or less service revenue. Both these two companies have an AML score below half of the maximum but have a risk score of 9 and 10, respectively. Therefore, while it is reasonable to assume that a high service revenue fraction correlates with lower AML scores, this is also compliant with the GwG taking together the risk-based approach and the fact that pure service companies are not obliged as “persons trading in goods”.

Our last hypothesis therefore reads

H4: The level of AML is moderated by the following company characteristics:

- Size
- Stock exchange listing
- Existence of a CMS
- Frequent cash transactions above 10,000 Euros
- Periodic contact with regulatory authorities
- Fraction of revenue generated by services.
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¹³ Here, it is important to focus on the category of “persons trading in goods” because certain non-financial pure service industries, such as legal services, are obliged to install AML pursuant to the GwG under another category.

V. CONCLUSION

The present research examines the current state of AML in the German non-FS and develops a survey instrument to measure AML. It is based on a framework as a result of grounded theory which was used to analyze eight in-depth semi-structured interviews. The survey instrument is instantiated with eleven companies and four hypotheses are developed. Overall, results show that AML in the German non-FS is heterogeneous and on a rather low level. Next to the unfulfilled responsibility of the companies, this may partly be attributed to deficiencies of the regulatory authorities.

For practice, this paper substantiates that companies and supervisors should work on a more standardized and thorough AML for the non-FS. With the presented framework, it points toward key factors and best practices which could also be taken into account by the regulatory authorities. Moreover, the framework also reveals that a more forceful enforcement of AML in the non-FS is needed. For research, thorough empirical information on a scarcely research topic is presented. The survey instrument provides a tool to analyze and compare the AML of a large number of companies with limited effort. Finally, the hypotheses serve as a starting point for future research.

A limitation of the framework is the focus on German “persons trading in goods”. However, the participants of the present study were mostly internationally operating companies. In other European countries, the specific conveyance of the EU AML Directives may result in different requirements for “persons trading in goods”. Internationally, regulations are even more heterogeneous which likely results in heterogeneous approaches toward AML by the non-FS. Future research could investigate such differences and their impact on AML which is assumed to be most effective when being seamless across countries and industries.

For the survey instrument, it has to be noted that the way it measures the level of AML, by the nature of such measurements, is subjective and cannot be validated by an objective measurement. Therefore, although we argue for its applicability and the appropriateness of its construction which is based on thorough empirical evidence, there is no proof that the AML score precisely measures the level of AML of the participants. Future research could replicate the AML score with an alternative measure for the level of AML.

Last but not least, both empirical investigations are limited by a small sample size. Theoretical sampling and saturation mitigate the small sample size for the semi-structured interviews. For the instantiation of the survey instrument, however, the low return rate limits the informative value of the results. Therefore, the developed hypotheses may be incomplete or misleading. Future research should hence consider the integration of further hypotheses when using the survey instrument with a larger sample.

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APPENDIX

A – INTERVIEW GUIDE

Note: The following questions only provide an orientation. The interview is designed openly and should develop freely.

A. Basic questions

1. Is your company aware of the topic „money laundering risk“? To what extent? Is the responsibility for that topic clearly assigned?
2. What money laundering risks does your company face?

B. GwG-obligations met or planned

3. Does your company meet all GwG-obligations?
 - a. Do you regard your regulatory authority/lawmakers as supportive for anti-money-laundering (AML)?

If yes:

4. What triggered your company to implement AML?
5. What information sources were used?
6. Did you or do you have external support for the implementation of AML?
7. What implementation barriers did you face?
8. Do you have an AML-officer (internal or external)?
9. How do you meet the internal control requirements of the GwG?
10. Do you conduct a structured risk assessment considering money laundering risks?
11. Are there any AML safeguards?
12. How do you meet documentation and archiving requirements?
13. What gaps do you see in your AML?
14. What success factors belong to and lead to good AML?

If no:

15. Is the topic unknown?
16. Is it known, but there were other reasons to not meet the GwG?
17. What basic measures do you have in place which mitigate money laundering risk?
18. How well developed are your internal controls?
19. Do you have a Compliance Management System?
20. What further control/monitoring elements do you have in place?

C. Weitere

21. Is there the willingness to set common regulatory standards in your industry/market?
22. Do you (want to) know something about AML of your competitors/contract partners?
23. Do you prepare an AML-report?
24. Next to the GwG, are there international/other national AML-laws which are relevant to your company?

Backgrounds (only for the researcher, not provided to the participant)

Introduction: Intro to research (questions), anonymity, voice recording

1. Money laundering definition known? Laws known?
Risks for the company known, especially sanctions?
Action required? (Who, if no clear responsibility?)
 2. Are these defined formally – if yes, by whom and on what foundation?
 3. Who is a „person trading in goods“? Is your company?
 - a. **Regulatory authorities:** Do you know each other?
Do you contact each other? If yes, how did the contact look like?
 4. **Triggers**
 5. **Know-How**, also in general! Ongoing updates?
 6. Possibly some duties performed by external consultants?
If yes, by whom and for what topics?

 8. Position in the company/hierarchy? Funding?
Known to authorities?
Mandatory (authority’s general ruling) or voluntary?
 9. General processes and identification process
risk-based approach incl. lawmakers black/white-list and simplified/enhanced CDDs?
 10. If yes, who does it, how often and who is responsible for measures derived from its analysis?
 11. Organizational instructions
Employee trainings
Transaction monitoring (business partners)
Coordination of all measures?
 13. **Compliance-Gaps:** Compliance-measures without AML-coverage
 14. **Success factors**
 15. Company capable of AML?
What are know-how deficiencies?
 16. What **barriers/implementation** difficulties?
Do company characteristics play a role?

 18. Does it contain elements with potential to mitigate money laundering risk?
 19. Do they have controls/monitoring and corresponding systems at all?
If so, how efficient are these systems? Are there efficiency efforts?
 20. Risks? (after explaining ML) Is ML considered as far-fetched?
Do they have cash transactions? How do they respond to that?
ML-typologies likely for the company? (after interviewer’s indication)
Even extant cases of ML?
Assessment of the risk of getting sanctioned?
 21. **Standard setting** within the industry or spanning several industries?
Do they already have experience?
What are possible exchange platforms?

 23. Has it ever been necessary?
Processes (internal/external STRs; Forms)?
 24. If yes, what laws and how are they met?
- FINAL QUESTION:** What would you like to share with us that we did not talk about at all or sufficiently?

APPENDIX B – ONLINE SURVEY

I. Money laundering in the non-FS

A. Money laundering risk

1. How much of a broad money laundering risk do you see for your company (internal view)?

Very high risk High risk Medium risk Low risk No risk

2. How attractive is your company for potential money launderers (external view)?

Very high attractiveness High attractiveness medium attractiveness low attractiveness no attractiveness

3. How well known are specific money laundering typologies in your company (e.g. smurfing, over-/underinvoicing)?

unknown Few known so-so Several known Well-known

4. How much is the risk that employees of your company commit fraudulent acts?

Very high risk High risk Medium risk Low risk No risk

5. To what extent does your company take part in complex (for third parties not or barely transparent) value chains?

Our whole business mostly so-so barely Not at all

B. Compliance gaps

6. What fraction of your compliance measures includes AML-related measures?

n/a <20% <40% <60% <80% ≥80%

7. How is responsibility for AML assigned in your company?

Clear responsibility Mostly clear so-so Mostly unclear Nobody is responsible

8. To what extent does your company fulfil the obligations of the GwG (especially due diligence pursuant to Sect. 3-6 GwG, internal controls Sect. 9 GwG)?

Completely fulfilled Mostly fulfilled so-so Little fulfilled Nothing fulfilled

9. What fraction of your AML discussions is documented?

n/a ≥80% <80% <60% <40% <20%

10. What fraction of your contract partners is not identified systematically?

<20% <40% <60% <80% ≥80%

C. Required action

11. What is the general attitude toward risk in your company?

Risk friendliness	Moderate risk friendliness	Risk neutrality	Moderate risk aversion	Risk aversion
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12. How do you judge AML in contrast to other compliance issues?

subordinate	rather subordinate	indifferent	rather priority	priority
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13. What fraction of AML did you conduct proactively (without external cause)?

n/a <20% <40% <60% <80% ≥80%

14. To what extent does your company plan to meet the GwG?

Not at all	Some elements	so-so	Most elements	The whole GwG
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II. Requirements of the non-FS

A. Regulatory authorities

15. How often do you have contact to your regulatory authority?

never	Less than once a year	Once a year	Twice to fourth a year	More often
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16. How would you compare the actions of various regulatory authorities to each other?

very heterogeneous	heterogeneous	so-so	homogeneous	very homogeneous
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17. How often is your company subject to an external AML audit?

More often	Twice to fourth a year	Once a year	Less than once a year	never
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B. Standard setting

18. How willingly are you to influence issues of law execution for AML?

desirable	Mostly desirable	so-so	Rarely desirable	Not desirable
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19. How often do you and your industry peers have an exchange regarding AML?

continuously	often	sometimes	rarely	never
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III. Development process

20. To what extent do you continuously revise you AML or would do so (if there is no AML yet)?

never	rarely	sometimes	often	continuously
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IV. Mitigating measures

21. To what extent can you exploit synergies between AML and other compliance measures or expect such synergies (if there is no AML yet)?

none	few	so-so	many	all
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A. Balance

22. How does AML influence your regular business or what do you expect (if there is no AML yet)?

barrier	mostly barrier	so-so	mostly assisting	assistance
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23. Have you ever filed a suspicious transaction report (STR)?

yes	no
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23a. How do you judge the feedback of the law enforcement authorities?

not helpful	barely helpful	so-so	mostly helpful	sehr hilfreich
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V. Core AML elements

24. Which **implementation barriers** exist for AML?

Insufficient definition
Complex law
Missing guidance
International legal conditions
Missing compliance-basis
AML awareness
Employees
Stuck structures
Others (Please elaborate)

None

25. Which **triggers** cause the implementation of AML measures?

Self-regulation of industry
GwG (law)
Economic pressure
Risky customers
By-product of other compliance measures
Others (Please elaborate)

No trigger

26. What information sources does your AML **know-how** have?

External sources
New employees
Special trainings
Other compliance issues
Financial sector
Rules of interpretation and implementation
Others (Please elaborate)

None

27. What **preventive elements** outside an AML-system are in place against money laundering?

Plausibility checks
Side issue in code of conduct
Avoidance of cash
active AML responsibility
Others (Please elaborate)

None

28. Which elements of an **AML-system** considering the GwG are implemented in your company?

Risk analysis

Contract partner due diligence

Employee trainings

STR process

Rigorous organization

Internal controls

AML officer

Employee background checks

Others (Please elaborate)

None

29. Which **success factors** influence AML?

Support of management

Compliance maturity level

Company-specific transmission of the GwG

Others (Please elaborate)

None
