

SpendQube Credit Scores White Paper 2023

Navigating Supply Chain Risk: Exploring the Benefits and Limitations of Credit Scores.

July 2023

by Lucia Oravcova



SpendQube

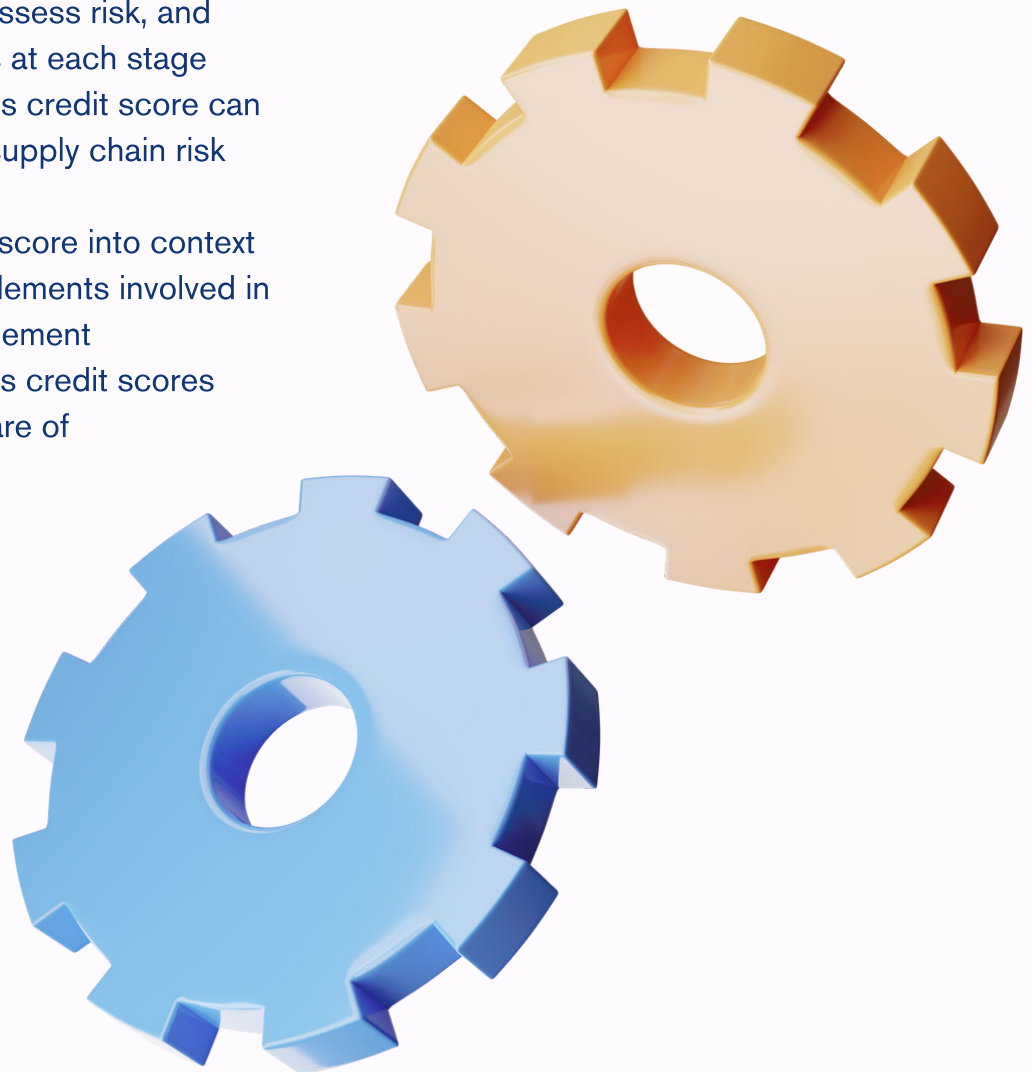
Contents

Executive Summary	3
1. Introduction	4
2. Credit Score	5
2.1. What is business credit score and how is it different from a personal credit score?	5
2.2. Scoring process step-by-step	6
2.3. Approaches of credit scoring agencies	7
2.4. What does the final score mean?	8
3. Supply Chain Risk Management	9
3.1. How can a business credit score help you with managing supply chain risk?	9
3.2. Other elements of supply chain risk management	10
3.2.1. Company profile	11
3.2.2. Business resilience	11
3.2.3. Regulatory compliance	11
3.2.4. Company reputation	12
3.2.5. ESG & Sustainability	12
3.2.6. Cyber security	13
4. Limitations	14
5. Conclusion	15
Sources	16

Executive summary

A business credit score is a tool that is still frequently misinterpreted and/or not used effectively by professionals as part of the supply chain risk management process. SpendQube's aim is to shed light on this topic and answer some of the key questions on credit scoring, and so, in this white paper we will:

- Define business credit score and outline its difference from personal credit score
- Walk you through the scoring process in detail
- Help you understand how agencies approach scoring and assess risk, and provide useful examples at each stage
- Establish why a business credit score can be a beneficial tool for supply chain risk management
- Put the business credit score into context against the rest of the elements involved in supply chain risk management
- Identify limits of business credit scores that you need to be aware of



1. Introduction

The purpose of this white paper is to explain the benefits and limitations of business credit scores when they are used in the context of supply chain risk management. Many people use credit scores on an everyday basis for personal purposes, so it is natural that they make a read-across between their understanding of personal scores and business scores. However, SpendQube's research has suggested that the understanding within the procurement and supplier management community of the differences between the two categories is limited.

As business credit scores encapsulate a lot more information than personal scores, we believe it's critical to discuss its implications in depth. This paper will therefore cover the following points:

- What is a business credit score, how is it compiled and calculated and, what can it tell you?
- How can a business credit score help you to evaluate and manage supplier risk?
- Why is it important to consider other risk management elements in addition to business credit score?
- What are the limitations of a business credit score?

The paper is not exhaustive but is intended to give professionals a starting point to research how they might better use business credit scores to support the risk management of their supply chain.

2. Credit Score

2.1. What is a business credit score and how is it different from a personal credit score?

At a first glance, the term “credit score” is usually associated with one’s creditworthiness or chances of honouring or defaulting payments. This is however more applicable for individuals (personal credit score) rather than companies (business credit score).

A business credit score mainly provides an indication of a company’s financial stability and overall financial health. Similar to a personal credit score, a business credit score reflects company’s financial behaviour over a certain period of time.

When it comes to supply chain management, a business credit score can be remarkably valuable. By using this tool, you can better assess risks associated with purchasing goods and services from a specific supplier. This is one of the central topics that we will discuss in detail in the third part of our paper. For now, we will uncover some of the elements that make up a business credit score.



2.2. Scoring process step-by-step

In order to properly interpret credit scores and learn how they can be beneficial to managing your suppliers, it is important to know how they are calculated.

Although the models and approaches vary between credit scoring agencies, our research indicates the process consists of these three underlying steps:

1. Credit scoring agencies gather sizable amount of available data relevant to the company. Both quantitative and qualitative data is collected and has influence on the final credit score. The information is collected from Company House, Statutory Register of Judgments (CCJ), payment/transaction details from Banks, domain specific data providers, news and current affairs, and from other publicly available domains.
2. The data is analysed and validated by the agencies consultants and processed by proprietary algorithms developed by credit scoring agencies.
3. Finally, a score is assigned to the evaluated company.

While the scoring process is fairly easy to get a grasp of, one question remains: what type of data do credit scoring agencies actually need to carry out the scoring?

The main data sets typically include (but are not limited to):

- Basic company information such as company size, years in business, number of employees and holding structure. Some agencies also assess the risk associated with operating in a particular industry.
- Key financial figures and statistics, for example: Annual Revenue, Profit & Loss %, Gearing %, Liquidity %, Return on Capital Employed, Return on Assets Employed, Current Ratio, Cash Flow, Debtors/Creditors records, etc. Bear in mind that credit scoring agencies take into consideration the latest as well as historical records.
- Payment analysis – one of the key factors which looks at whether the company has paid their bills and fulfilled any other financial obligations on time. Any delayed payments can have a negative impact and decrease the final score since the business could be deemed unreliable.
- Credit limit, i.e. the maximum amount of money that a financial institution will extend to the borrowing company. A higher credit limit can have a positive effect on the credit score – it signifies that the evaluated business is more trustworthy and has a greater capability when it comes to managing and repaying debts.
- Many agencies also review the company's credit utilisation which indicates how much of the business's total credit is being currently used. A higher utilisation could imply higher risk and therefore a higher credit score. According to Experian, credit utilisation “can impact up to 30% of a credit score (which makes them among the more influential factors), depending on the scoring model being used.” [Footnote 1]
- Capitalization information – this data includes specifics on how the assessed company is being funded, e.g. through stocks, borrowed funds, retained earnings, etc. By knowing the capital structure of the business, credit scoring agencies are able to determine the according financial risk.
- Any significant events that could impact the company's financials like court judgements, bankruptcy, liens, regulatory sanctions, etc. This type of information is usually publicly available and, for regulated firms, is statutorily reportable.



2.3. Approaches of credit scoring agencies

Even though credit scoring agencies follow the same process to a certain degree, it is the second step in this process that distinguishes them from one another. As the scoring algorithm is developed by each agency individually, their final scores might focus on different financial aspects, go into different level of detail and assign different weight to the assessed data.

Unsurprisingly, the algorithms are also kept secret, so the task of inspecting how exactly the scoring formulas work can be quite tricky. If you're using a specific credit scoring agency, we strongly advise that you familiarise yourself as best as possible with their approach to scoring to ensure that your interpretation is correct. To put things into practice, below we have outlined approaches of some of the main credit scoring agencies. (Note: the information contained here is based upon publicly available information from the companies themselves at point of publication. Readers should conduct their own research to check current status and criteria.)

Equifax

Equifax gather data that closely match with our list from section 2.2. (e.g. company information, public records, credit and payment history). This data is then submitted into the scoring algorithm.

Instead of one final score, Equifax's algorithm produces 3 scores. Each provides an insight into a separate financial area of the assessed supplier:

- **Payment Index Score** – focuses on how timely the supplier's payments are.
- **Credit Risk Score** – This score evaluates potential payment delinquency of a supplier and is particularly useful for lenders and creditors in establishing suitable credit terms.
- **Failure Risk Score** – indicates the chances of supplier ceasing its business in the next 12 months.

Creditsafe

Like Equifax, Creditsafe collect similar data, but evaluate them from slightly perspectives:

1. **Scores & Limits** – the major outcome of Creditsafe's report. It encompasses multiple areas which are calculated by using statistical techniques. For example: **Credit Score** (predicts supplier's payment delinquency and bankruptcy), **International Score** (allows you to compare credit risks of companies based abroad), **Credit Limit** (suggests the maximum credit you should offer to your supplier), etc.
2. **Core Business Data** – includes key company data on industry, structure, employees and officers, locations, compliance and legal filings. Based on changes that the supplier has undergone in the past years, you can better anticipate how it will perform in the future.
3. **Payment Data** – covers payment history as well as trend analysis, which enables you to forecast supplier's timeliness in fulfilling future payments.

Experian

Experian primarily gather data on credit obligations, legal filings and company background which are then combined with other complimentary data such as payment history and behaviour, public records and credit utilisation. All this information is subsequently processed by an algorithm that is based on formulas and statistics.

Overall, Experian's score signals the likelihood of delinquent or defaulted payments and indicates the level of risk associated with lending money to the company under review.

2.4. What does the final credit score mean?

Now that we have taken a closer look at how agencies determine the score, we need to understand what the final outcome means for you and your potential supplier. To start off, a business credit score is commonly represented in numerical terms. The scores most frequently range from 0 to 100, but there can be exceptions where bigger ranges are used. This is quite different from personal scores which “typically range from 300 to 850”. [Footnote 2]

So, what score should you be looking for when entering into a new relationship with a supplier? In most cases – the higher the score, the better. It signifies that the risk associated with the particular company is lower. There are usually ranges for different risk levels and to give you a better idea, we will demonstrate them again on the same examples:

Equifax

Payment Index Score

- One of the very few cases where a lower score implies lower risk
- 1-19: All payments on time
- 20-39: Payments late by 1-30 days
- 40-59: Payments late by 31-60 days
- 60-79: Payments late by 61-90 days
- 80-89: Payments late by 91-120 days
- 90-100: Payments late by more than 120 days

Credit Risk Score

- Uses a scale of 101-992
- Scores close to 101 signal high chance of the business being delinquent (i.e. high risk)
- A score of 700 and above is deemed good with low risks associated

Failure Risk Score

- Uses a scale of 1,000-1,880
- Scores close to 1,000 signal high chances of the business ceasing its operations (i.e. high risk)
- A score of 1,315 and above is deemed good with low risks associated

Creditsafe

- Uses a scale of 1-100
- 1-20: Very high risk
- 21-29: Low risk
- 30-50: Moderate risk
- 51-70: Low risk
- 71-100: Very low risk

Experian

- Uses a scale of 1-100
- 1-10: High risk
- 11-25: Medium to high risk
- 26-50: Medium risk
- 51-75: Medium to low risk
- 76-100: Low risk

3. Supply Chain Risk Management

3.1. How can a business credit score help you with managing supply chain risk?

As we have said before, a business credit score provides a valuable insight into a company's financial health. Financials have always been an inseparable part of supply chain risk management, and yes, reviewing your supplier's credit score can absolutely help you reduce risk. But – and this is the important bit – you need to evaluate the score from various viewpoints:

1. Overall financial stability – based on the credit report, it is quite simple to answer some of the basic questions you might have on supplier's financial performance (e.g., "Are they timely in meeting financial obligations?" and "Are they able to pay off debts?"). Suppliers with strong track records in these core areas tend to pose less financial risk since there is a lower chance of delayed payments. And taking into account that over 80% of buyers consider financial stability to be a fundamental metric for shortlisting suppliers [Footnote 3], it is imperative that you incorporate this step into your risk management process too.
2. Operational continuity – a business credit score is also helpful in estimating company's reliability when it comes to day-to-day operations. Typically, high-score suppliers do not experience financial issues and so there is a lower chance of disruptions to their daily activities. And how does this mitigate risks to your organisation? Generally speaking, supply chain partners such as these will likely meet your expectations and requirements. They don't tend to compromise on quality or deliver goods and services later than promised.
3. Supplier relationship – just as importantly, a credit score can tell a lot about the level of risk involved in your potential business relationship. Like in the two previous points, selecting a supplier with a high score is preferable – it signals a greater level of trustworthiness and stability which both significantly contribute to a positive relationship.

Without a doubt, a business credit score has many facets. But while it can help you make a more informed supplier assessment; it shouldn't be solely relied upon. As "89% of companies experienced a supplier risk event in the past five years," [Footnote 4] it is more crucial than ever to consider other elements of supply chain risk management as well.

We will review them together in the next section.

3.2. Other elements of supply chain risk management

Overall, supply chain risk management generally encompasses 7 different areas, including financial performance which we have already covered. By reviewing each of them, you can get a complete assessment of your new/existing supplier. The areas are:



3.2.1. Company profile

An activity which should kick off the supply chain risk management process is looking at the supplier's profile as a whole. Whilst company profile is also a factor that contributes to business credit scoring, what the score won't give you is any alignment between the reviewed company and your own organisation. Step one in any robust supplier assurance activity should be to consider the supplier in the context of your commercial, organisational, strategic and risk appetites and drivers. For example, the engineering company you are evaluating may be the very best fit for your requirements, but their sister company which manufactures parts for the global arms sector may be unacceptable to your broader corporate stance on ethical trading or investments.

This is why learning as much as you can about your selected supplier and collecting basic information is critical. Based on what you gathered, you can form an initial view on how risky the company is. Better yet, you can also verify information which has been already provided by the supplier during the purchasing process.

3.2.2. Business resilience

Resilience is certainly an attribute that you should be seeking from your key supply chain partners. After all, if a supplier can't respond effectively to a disastrous situation, your organisation might be endangered in a number of ways. As we all know, recent events like Covid-19 have truly tested many companies in this regard. 42% of them have suffered from a weaker competitive advantage with the biggest blow to their customer experience [Footnote 5]. But how can you determine if a supplier is resilient enough? One of the easiest methods is through a questionnaire. It can be tailored to the needs of your organisation and cover topics on business continuity planning (BCP), recovery strategies, business dependencies, improvement and innovation, etc.

3.2.3. Regulatory compliance

It goes without saying that a supplier which doesn't adhere to legal obligations, standards and guidelines can pose a major risk. The consequences of an unregulated behaviour can be devastating to your organisation and lead to fines, penalties, market restrictions, loss of licenses and even legal actions.

In the ever changing legal, governmental and economic environment, companies are even more pressured to adopt new processes and comply with updated regulations. This is especially true for manufacturing, finance and insurance industries which are currently the most regulated sectors worldwide [Footnote 6].

The fundamental step here is to know and understand which regulations are applicable to your organisation – you should be then able to determine whether your chosen supplier complies with the given standards. It is essential that you request and review their documentation such as certificates, permits, internal policies and procedures. It is also helpful to carry out regular audits and check if there are any records of previous non-compliance. Lastly, you need to remember that this is an ongoing process – i.e., your supply chain should be monitored for compliance on an ongoing basis during the entire relationship.

3.2.4. Company reputation

Damage to reputation and brand is at the moment perceived as one of the top 2 risks in the professional services and financial industry [Footnote 7]. This isn't surprising – in the modern era of online news and social media, incidents and scandals can spread like wildfire. That is why it is extra important to be careful about who you choose as your supplier.

While reputation is something to be assessed on its own, it is helpful to look at it in connection to the other elements of risk management: “Usually, reputation risks result from other risks. For example, noncompliance with applicable laws and regulations, misconduct of senior management, failure to adequately meet our customer's expectations and contractual requirements.”[Footnote 8] As expected, a bad reputation of any of your suppliers can reflect on your organisation too. The most affected areas tend to be customer perception and loyalty, talent attraction and retention, and relationships with investors and other organisations.

Sometimes it simply takes a bit of web research to determine how reputable a company is. There are usually plenty of articles and press releases that discuss major events related to your specific supplier. If you would like to take this a step further, you can also request references from the supplier's customers and companies they work with, or even conduct audits. Finally, there are many tools online that rate and rank reputations of companies based on a set of pre-defined criteria.

3.2.5. ESG & Sustainability

The supplier's environmental, social and governance practices are vital elements that you need to consider, especially since “sustainability is shifting from being voluntary towards being a requirement for an organisation” and “legislation is toughening and makes companies look at and be accountable for sustainability impacts that reach beyond their direct control” [Footnote 9]. Although these three elements are interlinked, it is beneficial to examine risks associated with each separately:

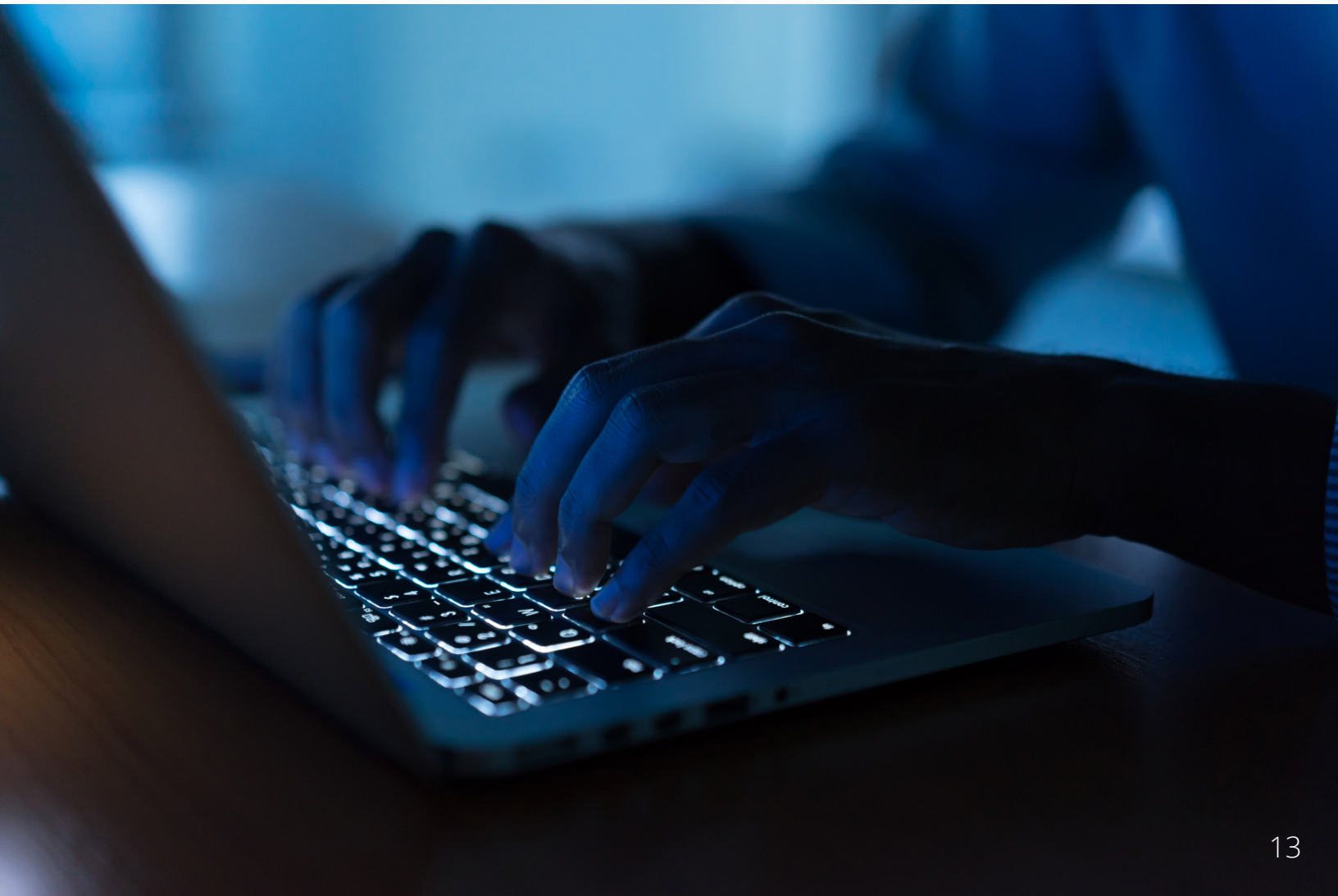
- Environmental risks – can occur when a company has poor environmental practises and procedures in place, e.g. they are not using renewable materials, not monitoring their sustainability performance or not raising any initiatives to help the environment. While these practices can affect their (and your) reputation heavily, there are even bigger risks at hand like not complying with emission limits or waste-disposal regulations.
- Social risks – are mostly related the supplier's behaviour when it comes to labour. The risks here can include child or forced labour, improper health and safety standards, any type of discrimination and other unethical practices.
- Governance risks – are typically tied to inadequate corporate controls and structures as well as insufficient transparency in reporting – either financial, operational or sustainability one.

All these risks can have a serious impact, starting at bad reputation and ending at fines or legal proceedings. Considering the risks involved, it is alarming to see that “nearly two thirds (65%) of businesses cannot tell if their closest supply chain partners are meeting any kind of ESG standards”[Footnote 10]. But in fact, there are many steps you can implement into your risk management process. For new suppliers, assessments of their ESG policies, reports, frameworks and certifications tend to be quite effective. For existing suppliers, we recommend continuous monitoring and setting clear expectations from the beginning of your relationship.

3.2.6. Cyber security

Lately, cyber security has become a prominent component of supply chain risk management. Digital systems, software and tools are now daily parts of suppliers' operations, but as technology advances, so do the risks associated with it. Cybercriminals are getting more cunning each day, which is why you need to ensure that your suppliers have proper measures in place to protect their business and yours. Data breaches, intellectual property thefts and malware attacks are just a few of the many cyberattacks that your company can be subject to. And their result? Damaged reputation, operational disruptions, potential violation of laws and loss of competitive advantage. And on top of that – financial loss. It might be a shock to some, but the average cost of a data breach is right now estimated at \$3.86 million [Footnote 7].

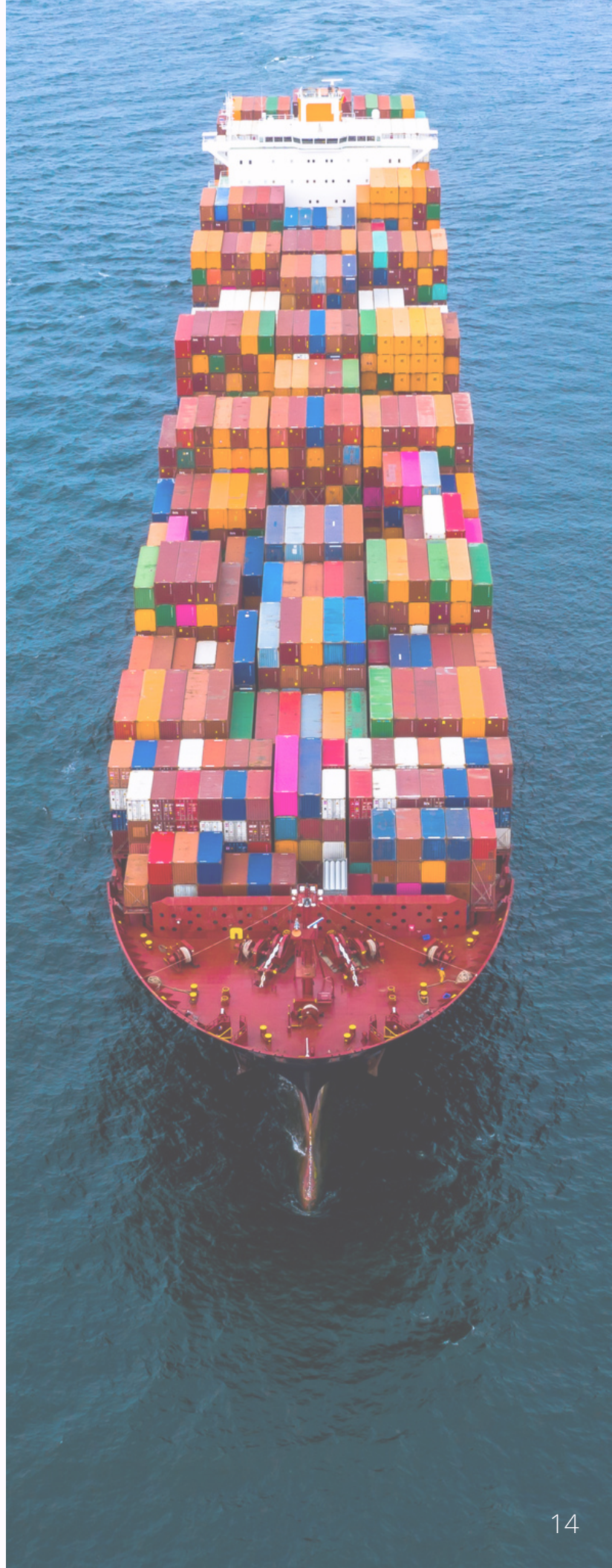
As with business resilience, one of the most effective ways to assess cyber security is by preparing a questionnaire for your potential suppliers. In there, you can ask about areas that you consider important. For instance, it might be useful to inquire about past incidents and how they were handled, which protective systems and controls are in place, what does the digital infrastructure look like and if cyber security is part of employee's training. You can also request any relevant certifications, procedures and policies. By learning about these details, you can determine the potential risks and uphold the security standard of your supply chain.



4. Limitations

Although we have listed many advantages of a business credit score in this paper, we can't forget that it has its flaws. There are actually several limitations imposed during the scoring process itself that you should be aware of:

- **No scoring standardisation:** as of right now, there are no standardised scoring algorithms or models which would be used by credit scoring agencies uniformly in their industry. Moreover, as we said before the algorithms are highly confidential which means it's nearly impossible to learn what formulas and statistics they use to arrive at a final score. As a result, agencies can provide you with different scores, which can make evaluating and comparing your suppliers rather problematic.
- **Data limits:** there are two main problems with data that is collected by credit scoring agencies, the first one being inconsistency in data reporting. Similarly to models and algorithms, reporting is not standardised across the various sectors. The second issue is related to historical records of a supplier – while long-standing businesses might struggle with outdated information, newer ones might face a challenge because of their very recent and not so robust financial history. In either case, this can cause inaccuracies in the scoring process and even result in a lower score for the supplier.
- **Industry dynamics:** some industries are naturally riskier than others, however sometimes it can be challenging for agencies to appropriately assess the industry dynamics. To illustrate this better: a supplier might be assigned a lower score simply because it's operating in a high-risk industry, even if its financial performance is among the best ones in the given field.
- **Overall reliability:** based on the points above, it is clear that credit score cannot guarantee complete accuracy therefore should only ever be taken as an indicator – not a proper due diligence.



5. Conclusion

Ultimately, business credit score is an important tool in the supply chain manager's box if used pragmatically. It can both independently validate or complement your own research on a supplier, and it can point you to areas of concern which might require further investigation. The essential factor in using it is to properly understand how the various credit scoring agencies recommend you use their scores and what they articulate are the limitations.

But there is also another point to keep in mind that we have touched on in this paper – a business credit score is not a magical solution for all your problems, and it shouldn't be used as a replacement for the rest of the elements involved in supply chain risk management. As the score mainly focuses on financial aspects of the business, it represents just a small part of evaluating your suppliers.

To see the full picture of who you're working with, we recommend that you consider all the aspects highlighted in section 3.2. and use tools designed to help with risk management. Even better, using these elements and tools in combination can be often incredibly useful and effective. For instance, by knowing the credit score of your suppliers and utilising our spend analytics software, you can get a comprehensive understanding of whether your suppliers pose an acceptable financial risk considering how much you're spending with them.



Sources

- 1 <https://www.experian.com/blogs/ask-experian/credit-education/score-basics/credit-utilization-rate/#:~:text=Your%20credit%20utilization%20rate%2C%20sometimes,generally%20expressed%20as%200a%20percent.>
- 2 <https://www.equifax.com/personal/education/credit/score/credit-score-ranges/#:~:text=Credit%20scores%20typically%20range%20from,good%2C%20very%20good%20and%20excellent.>
- 3 <https://www.supplychaindive.com/news/supplier-buyer-credit-relationship-financial-risk/437685/#>
- 4 <https://www.gartner.com/en/supply-chain/insights/supply-chain-risk-management>
- 5 <https://www.mckinsey.com/capabilities/strategy-and-corporate-finance/our-insights/strategic-resilience-during-the-covid-19-crisis>
- 6 <https://industrytoday.com/whats-the-worlds-1-most-regulated-industry/>
- 7 <https://www.aon.com/2019-top-global-risks-management-economics-geopolitics-brand-damage-insights/index.html>
- 8 https://www2.deloitte.com/content/dam/Deloitte/za/Documents/risk/NEWReputationRiskSurveyReport_25Feb.pdf
- 9 <https://www2.deloitte.com/fi/fi/pages/strategy-operations/articles/Supply-chain-ESG-risk-assessment.html>
- 10 https://www.coupa.com/white-paper/lp_pcrmt-22-esg-risk-supply-chains#top