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True DSO: The New Life Of This Fine Old Friend

by Andriy Sichka

Is the current calculation of DSO, while widely used, still valuable in today's business world? Maybe a new way of measuring the health of the credit function is needed?

The majority of people working in credit know about days of sales outstanding, or DSO. Debtors, divided by sales and multiplied by the number of days in period, is supposed to say how fast accounts receivable are turning over.

Simple and clear, the method has been serving several generations of practitioners pretty well. Over the years it has become an interface between credit and its stakeholders. In the recent decade, however, the ratio's accuracy and capability as a measurement of performance have been extensively criticised. Let us review the arguments and find out if there is a better way to measure credit.

According to the advice of Glen Bullivant, president of the Federation of European Credit Management Associations, DSO has been in use since the nineteenth century. In those times of paper bookkeeping and hand written entries on the credit ledger, it was meant to be a control of accounts and sending out past-due reminders. And certainly, at that time, a simple ratio served very well. But is it still as good as it used to be, in the highly competitive and high-paced environment of the computer era? There is no obvious answer.

Looking back

It is very clear, however, that the modern credit function cannot fully be described by one single ratio, whatever it is. Professor Ludo Theunissen of Ghent University and Joseph Busuttill, director of Malta Association of Credit Management, have cogently proved this in their article *Measuring Performance in Credit Management*. A substantial part of their work is dedicated to testing DSO's accuracy. Throughout a series of numerical tests, they found that the ratio fluctuates irrespective of a customers' payment behaviour.

It is critical to study how the formula helps to see the absence of any component related to payments that arrived or the amount of past dues. Therefore it tends to reflect the relationship between sales and receivables rather than collection period.

Another solid work, *Measures of Performance*, issued by the National Association of Credit Management's Credit Research Foundation, confirms that 'sales bias' infects all the performance measures that use sales as a factor.

In summary, DSO is inaccurate and too narrow-minded to be a comprehensive measure for the credit function.



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Nevertheless according to the Credit Research Foundation, 93% of companies are using it as a key performance indicator. The primary reason for this is it is reflected in terms of days.

Particularly, this common language ensures its suitability as an interface between different companies and different functions, and this has kept it in use for such a long period. Attempts to propose performance indicators in another format are unlikely to succeed in the near future.

So, if credit managers would like to have a better measurement than traditional DSO, it should be accurate, reflected in terms of days and should have a clearly defined sphere of application. Let us now try to find this measure!

The scope of this new measure could come from another definition of DSO - collection period. The majority of credit practitioners compare calculated ratios with either contractual payment terms for customers or aggregated figures, such as standard DSO, for the portfolio. As such, the best solution should be a measure of payment behaviour, or payment history. The number of days an average invoice stays unpaid - it would be difficult to find a better measure!

True DSO

The next task is to find a ratio reflected in days and free from any sales bias. Again, the Credit Research Foundation's recommendations are valuable in the description of 'true DSO'. This ratio deals directly with periods between an invoice's issue and actual payment date, giving a final result weighted by amount. The resulting formula, though more complicated than the original DSO, is still far from rocket science:

$$\text{True DSO} = L(a * p) / La,$$

where: a is the amount of each invoice, and p is the period between an invoice's issue date and actual repayment date.

Most of our corporate databases contain all the necessary data and provide ready-to-use reports for the extraction, so there is no need to call for help from the IT specialists! Built on the weighted average method, this ratio gives an accurate and balanced view of a counterparty's payment behaviour. It grows as a result of high levels of arrears, takes into account long-standing overdue rates and nearly disregards small or insignificant values. At the same time, it balances past-due payments and those paid earlier, thus giving an objective view on payment practice for each particular customer. Furthermore, if calculated for a long enough period, like one year, it could provide a sound background for a realistic estimation of future payment dates.

Nothing is perfect, and true DSO is not an exception to this rule. Its main limitation is that it could be calculated based on documents that have already been paid. All the attempts to apply it on open invoices will give results that make no sense.



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Its relative complexity, when compared to the traditional formula, could be easily overcome by Excel or similar. Also, there is no reason not to implement automatic calculation directly into your company's accounting programme. Instantly available from a system, such information can be of help in many components of the credit job. I have witnessed at least one case of implementation in SAP.

Conclusion

Modern credit management is a complicated business function which is strongly linked with almost all the other aspects of a business. It requires practitioners to have knowledge and skills from different areas, which, at first sight might be quite unrelated. Its performance, therefore, cannot be measured by any single measurement. And, on top of anything else, the competitive environment of recent years requires continuous improvement, in terms of quality and accuracy, from all business functions.

True DSO, suggested above, is an example of how an accurate measure can be applied to the specific area, where it serves the best. **CCR**

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