

# PERSPECTIVE

## Using Analytics to Reduce Days Sales Outstanding (DSO) *Accounts receivables analytics*



### FOREWORD

There is much excitement about the potential in new forms of data adding to the volume of Big Data available to business. Yet, as identified in a recent CGMA report<sup>[1]</sup>, there is still untapped potential in the enterprise data captured on business systems. This should be an earlier priority for management accountants and businesses.

This Infosys paper, produced in association with CIMA, provides a practical example of how management accountants can take advantage of some of the data readily available to a business to improve the analysis and management of accounts receivable.

It alerts finance professionals on to how data can be used in new ways to improve cash flow and ensure the value of the organisation is maintained.

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<sup>[1]</sup> From insight to impact - unlocking opportunities in big data, CGMA 2013, [www.cgma.org/data](http://www.cgma.org/data)

## Abstract

Managing accounts receivables without appropriate analytics could be likened to landing a plane without windows or electronic instruments – accidents are bound to happen. This becomes even more significant in this ever-changing and uncertain economic environment, and you can no longer fully rely on experience and instinct alone. This paper explores how to leverage analytics in the accounts receivables process to deliver a better return on investment (RoI).

## Finance & accounting (F&A) and analytics

In today's complex world, effective F&A process management and strong analytics should not be considered in isolation.

Wikipedia defines analytics as: "...the discovery and communication of meaningful patterns in data. Especially valuable in areas rich with recorded information, analytics relies on the simultaneous application of statistics, computer programming and operations research to quantify performance. Analytics often favors data visualisation to communicate insight."

In this definition, it is important to note the words "discovery and communication" (and not action). Analytics can only serve as a guiding light to highlight potential issues. It is then necessary to take appropriate action to address and resolve these issues. The key is to have an effective analytics framework such as that in figure 1: "Right insights at the right time to the right people"

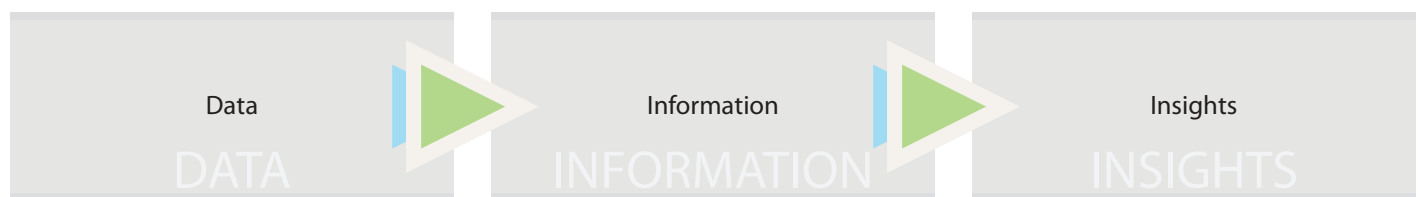


Fig 1: Data when refined becomes information, which gives actionable insights

## The analytics framework

An analytics framework defines a structure through which insights may be shared with the finance function. The framework makes all the information shared from analytics meaningful for and usable by stakeholders, both within and outside the organisation.



### A few characteristics of a good analytics framework include the need to be:

- **Crisp:** It should provide the maximum amount of insights through the appropriate amount of data - more data does NOT mean more insights.
- **Nimble and Flexible:** It also needs the flexibility both to adapt to the changing environment and to enable the segmentation of available data into various usable dimensions.
- **Relevant:** It should be able to provide levels of detail that are relevant to each stakeholder. An effective approach is to start creating data from the bottom up before rolling it out in ascending order to various levels of the organisation (eg: agent level > team level > business-unit level > delivery-centre level > geographic level > pan-organisational level.)
- **Action oriented:** A good analytical framework must be action-focused and able to clearly identify the root causes of an issue before recommending potential next steps for resolving it.
- **Timely:** Reports should be of an appropriate frequency to give people sufficient real-time information while not overloading them with too much information.

## Analytics maturity matrix

It is well understood that a more mature analytical ability will yield exponentially higher business benefits. Organisations therefore have a strong focus on moving up the maturity curve (see Fig 2) in the shortest possible time.

Chart 1 describes typical characteristics of organisations at various stages of analytical maturity.

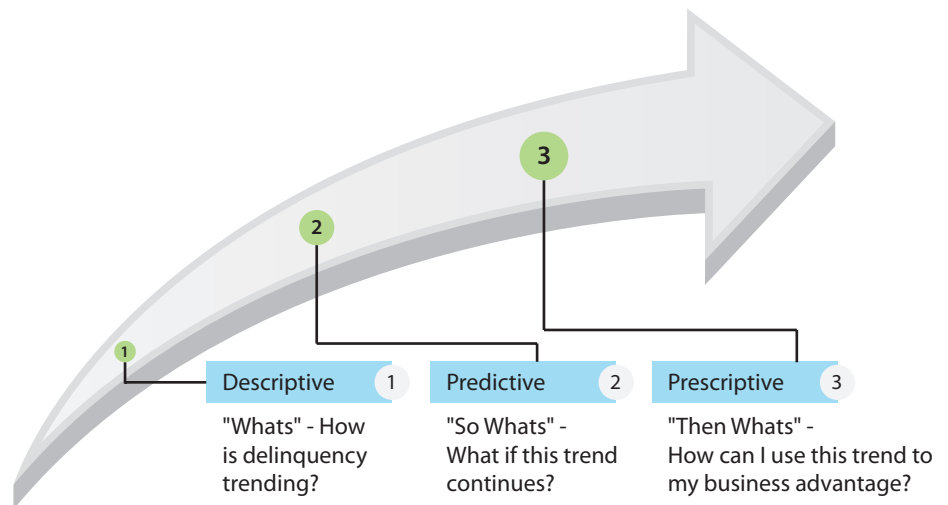


Fig 2: Analytics Maturity Curve

## Chart 1: Analytics Maturity Matrix

	Stage 1 – Developing	Stage 2 – Effective in Silos	Stage 3 – Best in Class
Process	<ul style="list-style-type: none"> <li>Non-standardised processes, locally owned and controlled</li> <li>Poor-quality and incomplete data, operational definitions not aligned</li> <li>No reporting structure in place</li> </ul>	<ul style="list-style-type: none"> <li>Processes standardised and automated at a function level, complete and accurate data available in a timely fashion with standard operational definitions. Function-specific reports and analysis in place</li> </ul>	<ul style="list-style-type: none"> <li>Globally standardised reporting process with local nuances, customer hierarchy appropriately mapped, enterprise-wide data aggregation facilitation, business level data intelligence</li> <li>Well managed Big Data</li> </ul>
Technology	<ul style="list-style-type: none"> <li>No/poor-quality IT platform to facilitate data warehousing or Business Intelligence (BI)</li> <li>Basic tools available to facilitate data mining/ massaging</li> </ul>	<ul style="list-style-type: none"> <li>Effective data warehousing solution. Big data management with one-touch reporting suite and statistical modelling capabilities</li> <li>Strong benchmarking and gap analysis capabilities</li> </ul>	<ul style="list-style-type: none"> <li>Intelligent BI tools which combine internal Big Data with market factors with intelligent maximisation models</li> <li>Dynamic one-touch reporting suite with cloud and mobility compatibility modules</li> </ul>
People	<ul style="list-style-type: none"> <li>Limited analytical skillset; resources mostly focused on manual data collation and reporting. Output mostly reactive</li> </ul>	<ul style="list-style-type: none"> <li>Function-level analytical capabilities in place; resources focused on proactively identifying the potential future impact of existing intelligence and highlighting root causes.</li> </ul>	<ul style="list-style-type: none"> <li>Function-level analytics team cross leveraging Delinquency Trending and aggregating at an enterprise level; resources able not only to do effective Root Cause Analysis but also to suggest actions to take advantage of future situations</li> </ul>
Culture	<ul style="list-style-type: none"> <li>Focus on descriptive analytics – "The Whats"</li> </ul>	<ul style="list-style-type: none"> <li>Focus on predictive analytics – "So Whats"</li> </ul>	<ul style="list-style-type: none"> <li>Focus on prescriptive analytics – "Then Whats"</li> </ul>

## Analytics in accounts receivables (AR)

In today's environment, a significant proportion of the world's organised business transactions are done on credit, making it right to call credit the life blood of today's business environment.

Merriam-Webster's definition of credit is interesting: "the provision of money, goods, or services with the expectation of future payment..."

Examining the phrase "future payment" highlights the need for credit management. As the future is uncertain, so is the behaviour of individuals and organisations. It is critical for organisations to safeguard their accounts receivables by ensuring that their credit transactions are closely monitored and effectively managed. For the purpose of this paper, our focus is on "post billing" factors – i.e. those which are directly under the control of the accounts receivable department. However, since the Order to Cash cycle is a continuum with complex interdependencies (which we explain later) there are likely to often be references to "pre billing" factors as well.

## Leveraging analytics for effective AR management

An efficient AR management process enables an organisation to take a more aggressive position in allocating credit without running the risk of a rise in non-payment. This enables them to do business at a lower risk threshold, thereby penetrating a riskier set of customers and markets. This can be a strategic competitive advantage in today's marketplace, where products and services are almost indistinguishable.

An intelligent collections organisation is one that has mastered the answers to the following questions:

- Who to follow up with, when, and how often?
- What is the best mode?
- What do I say to the customer?
- When do I escalate?
- How do I escalate?

**Analysing your AR portfolio:** accounts receivables is a financial outcome that is expressed in terms that accountants understand. To improve AR management, it is necessary to assess the non-financial drivers behind these outcomes (i.e. customers). An AR manager has to carefully analyse the AR portfolio to work out how much exposure each customer segment carries, along with the various ways in which customers are reacting. A good portfolio segmentation strategy is one in which the following factors have been considered:

- Customer/industry exposure
- Customer contact behaviour pattern
- Customer payment behaviour pattern
- Payments per AR aging bracket
- Reasons for non-payment

Effective portfolio analysis is the backbone of all subsequent strategies (collections strategy, contact strategy, dispute management strategies, escalation strategy, write offs and reserves strategy

etc). It is therefore very important that this is done with appropriate detail and rigour.

**Designing an analytics-based collections strategy:** insights received from portfolio analysis form the basis for developing a collections strategy (see Fig 3). This strategy focuses on answering "Who to follow up with, when, and how often?". There is no single right strategy. The AR manager needs to tailor the collections strategy basis by analysing factors like portfolio mix (exposure), account complexity segments (locations etc), industry mix (Government, hospitals etc), dispute mix or strategic relationships with clients, customer behaviour trends and more.

Of course, clients' accounts payable departments receive collections call from multiple different vendors every day. It is therefore important to be a lender of priority, maintaining front-of-mind recall to maximise "share of wallet". Many innovative companies are now using complex statistical models to predict customer behaviour and develop an impactful strategy.



Fig 3

**Using analytics to design your contact strategy:** experts often debate whether designing an effective contact strategy is an art or a science, and both sides have strong supporting arguments. In reality, an effective contact strategy is as much of an art as it is a science, which is where an individual AR manager's effectiveness comes into play. Every AR portfolio has unique characteristics and behaves differently depending on its organisational and market dynamics. Analysing metrics like contacts per hour, best time to call and response rates can give organisations a good understanding of what works. Organisations may also do a cost/benefit analysis of the mode of contact versus AR exposure.

**Usage of analytics in cash applications:** many organisations deploy various automated application tools and lockboxes to reduce the required level of manual work. One aspect which often goes unnoticed, however, is the root cause analysis (RCA) of payments which fall out as exceptions. The effective management of these processes can significantly help improve auto-application rates, thereby reducing the costs of AR management. Careful analysis of misapplications to find any underlying issues is also important in reducing them.

**Analytics to improve dispute management:** expert AR managers use historical customer data to anticipate the probability of disputes occurring. Complex models are also available that assess the probability of disputes on the basis of region or product/service purchased. The reasons for disputes mostly lie outside the AR process, making it important that a good RCA and close-looping process is put in place with CxO-level sponsorship.

## Key business level metrics

The following key metrics (Chart 2) give a sound indication of the health of any AR management process. It is highly recommended that business managers closely evaluate the performance of these metrics on a regular basis.

Parameters	Key Metric	Level 1	Level 2	Level 3	Level 4	Level 5
Cost	AR cost as a % of revenue	> 1%	> 0.5% and < 1%	> 0.1% and < 0.5%	> 0.047% and < 0.1%	< 0.047%
	AR cost as a % of overdue	> 1.75%	> 1.5% and < 1.75%	> 1.25% and < 1.50%	> 0.98% and < 1.25%	< 0.98%
Efficiency	# of AR FTE per billion dollars of Revenue	> 20	> 15.72 and < 20	> 11.45 and < 15.72	> 7.17 and < 11.45	< 7.17
	# of credit customers per FTE	< 1000	> 1000 and < 3210.02	> 3210.02 and < 5420.05	> 5420.05 and < 7630.07	> 7630.07
Effectiveness	Gross overdue as a % of revenue	> 30%	> 23.34% and < 30%	> 16.677 % and < 23.34 %	> 10% and < 16.67%	< 10%
	% of straight through pass in cash applications	< 45%	> 45.00% and < 63.27%	> 63.27% and < 81.53 %	> 81.53% and < 99.80 %	> 99.80%

Chart 2: Source: Infosys Benchmarking Survey

Different organisations have different levels of efficiency in terms of the effectiveness of their AR management processes. The difference between a level 1 and a level 5 organisation is primarily how effectively and appropriately they use the intelligence provided by business analytics to modify their AR strategies and take corrective actions. The following section explains which individual elements need to be analysed during the development of an AR management strategy.

## Continuum and interdependencies

While attempting to establish what caused overdues, it is important to understand that a large proportion of the root causes of potentially serious overdues lies completely outside the AR department. It is therefore important for AR managers to take an end-to-end view of interdependencies and to implement solutions accordingly. A simple adjustment to an upstream or downstream process can significantly improve collection efficiency. Figure 4, which shows the “Order 2 Cash” (O2C) continuum, highlights some examples of interdependencies.

### Close-looping with the credit risk team

The information gathered while doing business analytics for an AR management process is of immense value for the credit risk team when they are developing their risk models. This data helps the risk teams to make crucial decisions on the riskiness of their portfolio and make valuable changes to the credit policy.

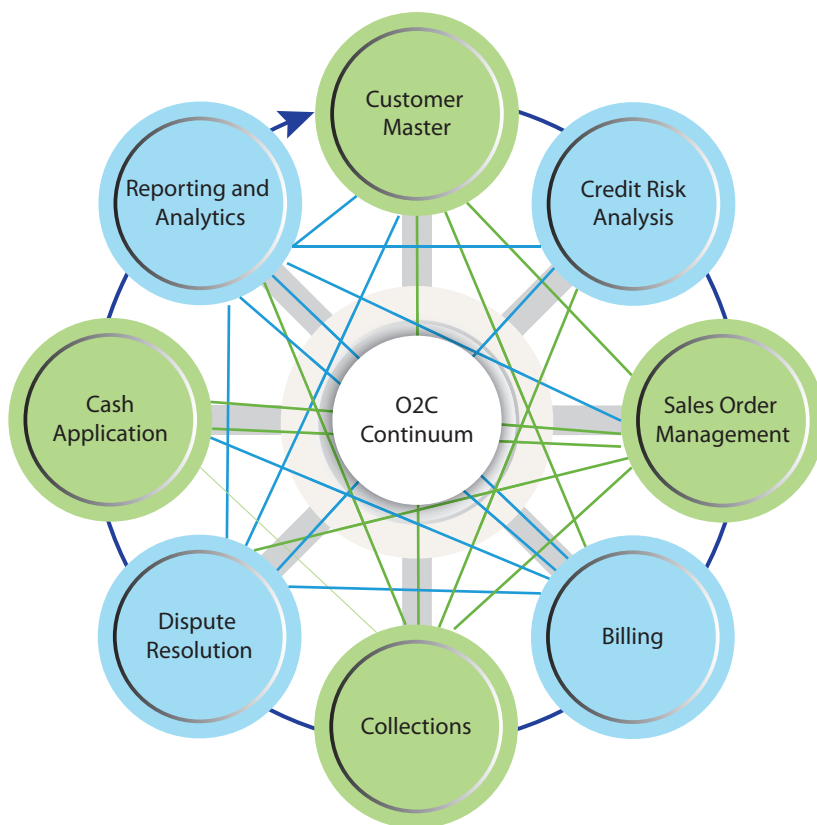


Fig 4

## Conclusion

With resilient analytics, the AR management process enables an organisation to take a more aggressive position in giving out credit and reduces business risk. Business analytics can add much value in terms of getting a competitive edge, improving cash flow, reducing delinquencies (non-payment) and mitigating losses. Analytics will significantly reduce the cost of collections and improve customer satisfaction levels. Many organisations actively invest in analytics, not just because it is critical for survival but also because they can deliver returns that are exponentially higher than the required investment.



## About the Author



### Saurabh Arora

Saurabh is the O2C practice leader for Infosys and is responsible for developing a best in class O2C offering with a world class service framework. He has over 14 years of experience in the O2C space with hands on experience of managing large multi-geography teams for both B2B and B2C O2C clients. Saurabh is a Masters Finance and six sigma certified professional with a strong understanding of the European Market along with deep domain knowledge of the Order to cash cycle. Prior to his role in Infosys, Saurabh worked with Genpact in both offshore delivery support and onshore client management.

## About CIMA

The Chartered Institute of Management Accountants (CIMA), founded in 1919, is the world's leading and largest professional body of management accountants, with over 218,000 members and students operating in 177 countries, working at the heart of business. CIMA has formed a joint venture with the American Institute of CPAs (AICPA) to establish the Chartered Global Management Accountant (CGMA) designation. CGMA is the global quality standard that further elevates the profession of management accounting. The designation recognises the most talented and committed management accountants with the discipline and skill to drive strong business performance.

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