

RENAIX

A Guide to Big Data, Analytics and FinTech

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Introduction

Finance professionals spend a great deal of time with the planning, budgeting and forecasting (PBF) process. It is an important aspect of business planning since it not only provides management with measurable goals and targets but also offers a broad outline as to how to achieve those goals. In fact, the CFO and the finance department in some organisations, can drive business with an active and aggressive planning and budgeting process.

Big data, analytics and fintech offering a helping hand

Given the importance of the PBF process to the modern day organisation, it is not surprising that a significant amount of resources are devoted to it. The entire process is however very data-centric and its effective use means that it has to be iterative. This requires tremendous resources both in terms of computing power, personnel and time. In order to make the process faster and more efficient, big data and analytics is generally utilised within fintech applications. These new technology

solutions allow managers to process vast amounts of data and quickly gather the insights and information that they need to make decisions. It has truly been a game changer for data-centric iterative processes like budgeting and planning.

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Feel free to send us your CV and a member of our team will be in contact to offer their consultancy and advice on your options and how to successfully secure your next role. As part of our service, we are also happy to review your CV and provide comments and advice on how this may be improved to increase your chances of landing your next role.

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Cognitive
analytics –
the revolution
in planning,
budgeting
and forecasting

Cognitive analytics – *the not too distant future*

While data analytics has been proven to be useful, some innovators are now looking to develop something even more intuitive and radical. They are working towards cognitive analytics. The idea is to create a system which is capable of understanding commands via speech or text and then processing available data to provide usable information. Perhaps the day is not too far off when you can just speak to a cognitive data system like you do right now to Siri or Cortana.

Imagine asking a system, “How do I reduce my operating costs for the German subsidiary by 5%?” and the system can go through all the information available to it via the company’s financials albeit, vendor management, invoice processing or inventory management systems etc. and come back with an answer. The suggested solution would probably consist of four or five steps and an estimate of the possible benefits. There would most likely be more than one option as well.

This might seem like some way off technologically, but developers at leading business intelligence companies are already working on something similar. After all, if Siri can find you the cheapest route from London to Istanbul by searching the internet, why can’t business intelligence software search the local company database and find the cheapest way to transport raw materials from vendor to plant?

Preparing for the future

Cognitive analytics will be coming to us in the near future. Even now, there are systems capable of smart analytics which are already making data analytics easier and faster. However, the key to success is in ensuring the quality of data accurately captures relationships between variables, along with cause and effect relationships. Cognitive analytics will take the low end manual grunt work out of the equation and enable managers to focus instead on asking the right questions. In fact, managers will be able to generate tangible value for the organisation by finding creative solutions to everyday problems. Solutions which have already existed but were not visible behind the mountains of data. This is a future which cognitive analytics promises to deliver.

The rise and rise of fintech

Across the major financial capitals of the world, fintech startups are booming. What started as essentially database solutions to store and protect data has now become the biggest driving force in finance. Whether it is the big banks or e-commerce firms utilising these new innovations, or the finance and accounting department at any major corporate, the race is now on to use technology to make finance simpler, easier, faster and safer.

Right now the major focus of fintech is in the retail industry. A lot of players have entered the market and are competing with banks to provide payment solutions, purchasing solutions, easier methods of funds transfers and cheaper and faster borrowing. However, the next big jump for fintech will be to move on to the corporate side in a big way.

Fintech for corporates

The finance and accounting departments at corporates face a mammoth task in ensuring the seamless flow of capital across the organisation and beyond into their supply chains. Increased efficiency in this area does not only mean an increase in financial efficiency but can also lead to direct savings which affect the bottom-line. Recently, we've begun to see a number of fintech players move from the retail industry and target medium to large corporates with their services.

As an example, we can look at the global supply chain financing industry. The traditional process involves a huge amount of manual work in respect to invoicing, tracking payments, following up with channel partners and managing the working capital gap etc. Even with the digitisation of paperwork, most of the process remains the same. However, many fintech companies are now stepping in to totally auto-manage the entire process.

Fintech companies are providing platforms whereby corporates do not have to do any due diligence on their channel partners. They simply buy a subscription from a service provider and can filter various vendors based on their specific requirements. Where this gets better is that the service provider will automatically collect all KYC (Know Your Customer) documentation and other certificates on behalf of its clients. Furthermore, all payments will be automatically tracked and users merely need to authorise the payments on the portal. Similar systems may be adopted on the receivables side with systems tracking all incoming payments and automatically reconciling them with unpaid invoices. Any shortfall in working capital may trigger an automatic request being sent to banks or financial institutions to fund the shortfall.

The future

While many systems already exist which can do a similar task as described above, fintech is bringing a new level of efficiency into the system and a seamless integration with existing processes/platforms. When the first fintech solution providers entered the retail industry, many experts wondered if there was indeed any value added technology being done by them since the services they were providing were already being offered by banks and other financial institutions. However, by using technology to speed up service delivery, improving the way information is presented, and streamlining the process of performing transactions, FinTech has managed to carve out a big niche for itself. Now, the same strategy is being applied to corporate finance as tech-efficient solutions are penetrating old and cumbersome legacy systems in companies throughout the world.

How finance managers are using business intelligence platforms to gain insights and drive growth

Companies which design, produce and sell business intelligence software have claimed that the use of their platforms has increased productivity in financial planning and accounting from between 20% to 50%. What's more, these companies claim that the use of their software not only increases efficiency but provides insights into the business in a way which was simply not possible earlier.

But how does all of this really happen?



Creating efficiencies

How does a BI platform create efficiency for finance and accounting functions? It does so by incremental improvements in every step along the way:

1. BI platforms essentially take financial and other company information as input and then have the ability to automatically make sense of it based on minimal user input. The user simply has to define some relationship between variables and data and the best platforms should be able to take it from there.
2. BI software can then throw out some predefined reports and arrange all data provided in a way that aids budgeting and planning. The information can be categorised based on business function, type and so on. This way, division heads can work on their own departmental budgets in an iterative manner.
3. Business intelligence platforms encourage a repetitive way to plan things. An end result can be defined with for example, increasing profitability by 10% and then adjustments made to various revenue targets, costs etc. to achieve that result. The advantage here, as compared to say an excel model, is that the system is not prone to errors, is faster, allows for easy collaboration and generates better reports.

Providing new insights

Creating efficiencies is good but most BI platforms aim to go further. They are designed to add value not by doing the existing tasks in a better way, but rather by finding newer things to do. Some companies dedicate their finance departments to traditional tasks of financial planning, accounting, budgeting and managing the accounts. With smart BI platforms, the role of the finance function can be more transformative. Instead of creating a static budget or plan to meet a company target, some of the more robust BI platforms encourage the use of dynamic plans which can support each business function continuously.

Traditionally, each business division would be provided with a budget and then be tracked on their performance. The new paradigm is to provide ways to achieve that budget instead and that is where BI platforms come in. If the budget calls for a 10% reduction in transport costs, then the BI software will help you find out how that can be achieved while still maintaining all the other parameters within desired thresholds.

Therefore instead of spending time on creating and modifying budgets, finance departments can create a dynamic budget which can then be continuously tweaked by the business divisions themselves. The finance department can then spend its time trying to find insights and efficiencies using the data analytics capabilities of the BI platform thereby helping drive growth.

The secret to data analytics and audit quality

Data analytics has already made significant inroads into various aspects of finance and accounting; business intelligence platforms are utilising data analytics tools for planning, budgeting and reporting and audit functions are not far behind.

A recent survey of 150 senior audit practitioners by the ICAEW revealed that around 70% believe data analytics can improve audit quality. This is in addition to other benefits such as additional insights, cost saving, fraud detection etc.

How exactly however does data analytics improve audit quality?

Exploratory and confirmatory data analytics

Exploratory data analytics is employed to find interesting patterns in existing data. This is useful because it may reveal some obscure relationship between variables not easily visible to the naked eye.

Confirmatory data analytics is deployed to look for the existence of certain predefined patterns and confirm a hypothesis. This can be useful in situations where combing through reams of data using traditional technologies would be prohibitively time-consuming. Thus, rather than relying on workarounds like data sampling, confirmatory data analytics could provide a more comprehensive and decisive outcome – therefore reducing the potential risk.

Another key benefit of data analytics is its significantly increased ability to detect fraud and other operational breaches. Companies and even regulators are already using such techniques to look for suspicious patterns in high risk activity.

Making it work

Despite the benefits that data analytics clearly provides, there are certain challenges which restrict its usefulness in a general sense.

The most obvious challenge is the cost in deploying such a system. Although, with time and broader adoption, the costs are coming down. Software vendors are now developing tools and making them available to corporate clients at more affordable price points. This brings us to the second, and more long term challenge—lack of a skilled workforce with the appropriate skillset to operate such systems. Even large, professional auditing firms are struggling with skill shortages in this field as it requires a high-level cross-disciplinary expertise.

Other challenges remain around data integrity and access. The results from data analytics depends on the quality of the data that is fed into it in the first place. Tech companies relying heavily on data analytics have their entire systems designed around the collection of meaningful data, while for most other companies it is usually a patchwork of disparate legacy systems. This means that data quality can vary wildly, and this in turn can impact audit quality.

Conclusion

The benefits of data analytics in compliance, risk management and audit are apparent. It increases audit quality and, in most cases, provides additional insight which can prove invaluable. However, the dearth of skilled manpower remains a key challenge. This will require significant company investments in the development of technical skillsets as well as analytical mindsets on the part of practitioners.

```
error_reporting(E_ALL ^ E_NOTICE);
```

```
<script src="/js/library/jquery.livequery.js?v=2
```

```
POST /DataRetrieve HTTP/1.1
```

```
<script src="/js/global.js?v=2.2" type="text/ja
```

```
Host: 192.168.1.1
```

```
<?
Content-Type: application/octet-stream; charset=utf-
```

```
Content-Transfer-Encoding: base64
```

What is “agile” for accountants and how does it work?

The concept of “agile” has its origins in the software development world and it has taken the sector by storm. The core idea behind the jargon was simply to make the process more flexible.

Traditional methods involved spending much time setting up the requirements, features, resources and development cycle and then working on the software. Even small changes to this initial plan necessitated a rework causing delays and bugs, far from ideal in the fast-moving tech world.

```
report value 88268;
```

```
</verifiedToken>
```

```
</xml>
```

This was where agile came in, along with all its accompanying concepts. An agile department or company would equip itself with the necessary tools and adopt the relevant processes allowing it to react quickly to internal and external changes. These changes could be in the scope of the work, the tools with which the work is done, the rules that must be followed and so on.

Finance and accounting departments around the world have been adopting agile methodology subsequently with the following outcomes:

Continuous planning

This is one of the most visible changes in the finance and accounting departments of large corporates. Instead of static plans and budgets, the agile process calls for continuous planning, adjusting daily, if need be, to keep the plan relevant at any one given time.

Information flow

Agile calls for continuous information flow between the accounting and finance departments and all their stakeholders. This requires a solid reporting structure that requires minimal manual intervention and can accommodate unique scenarios.

Technology

Cloud computing and SaaS product offerings allow end users to use the latest day-zero version of any software. It allows users to keep their tools agile. More modern tools like AI-driven algorithms and cognitive business intelligence platforms can further augment the technological edge of an agile organisation.

Data analytics and predictive planning

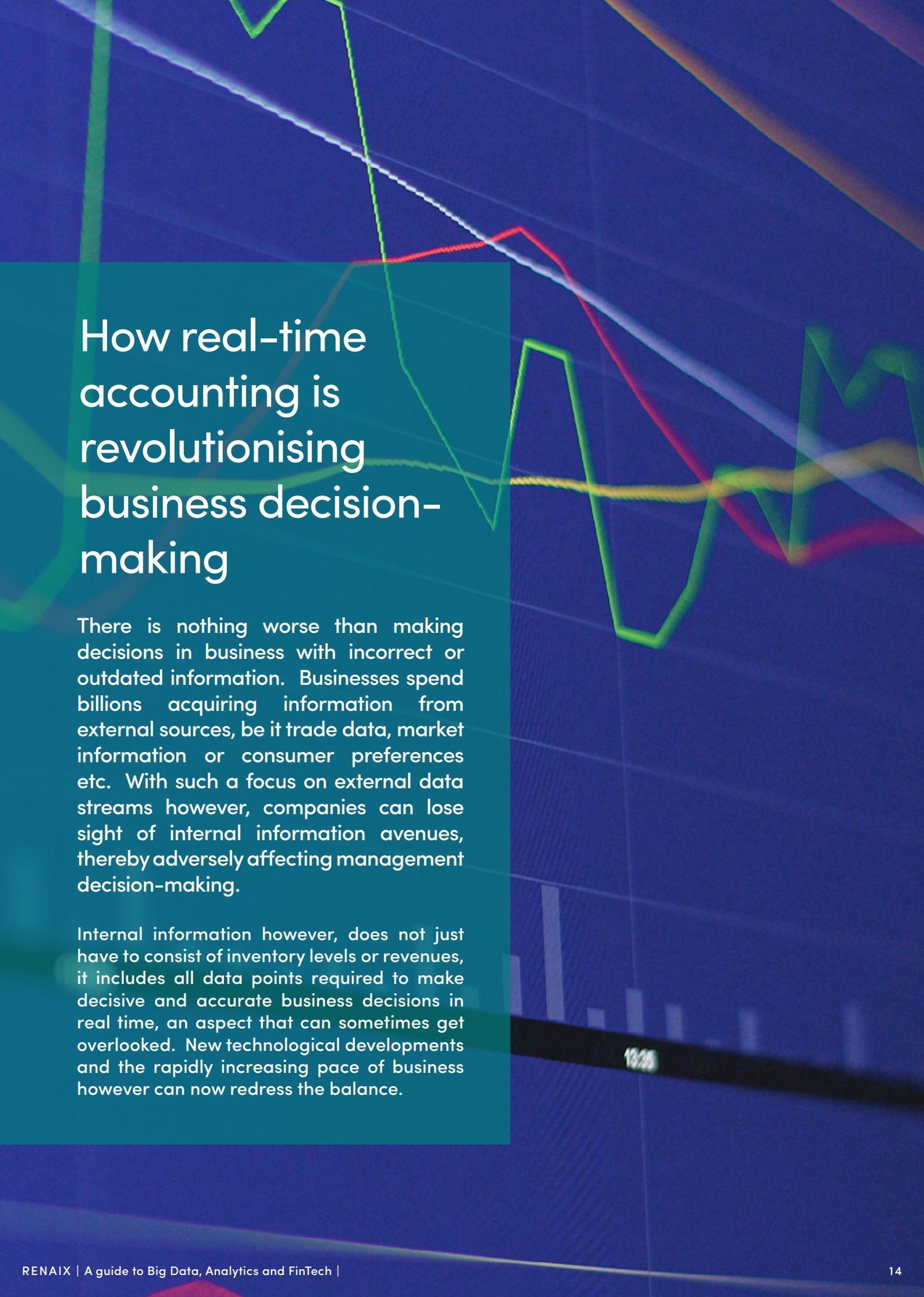
Taking agility to the next level may mean reacting to a situation before it even develops. This is where advanced data analytics and predictive planning comes into play. Using the right tools, it is indeed possible to forecast a trend before it even develops and prepare accordingly.

Regulatory requirements and compliance

An ever-increasing focus on risk management has meant that there are many more areas to monitor and report today than was the case previously. The cost of non-compliance has also risen considerably in recent years. An agile compliance department ensures that any changes in the requirements can be incorporated in the system with immediate effect. All thresholds can thus be monitored in real time rather than at a set frequency and any potential breaches handled rapidly.

Agile leadership

According to an Oracle-sponsored research report, 95% of organisations that adopted an agile model reported a positive growth in revenues, versus 70% for others. The research found agile leaders to be more receptive to adopting practices like the use of shared service centres and cloud computing. This made their departments and organisations more flexible and quicker to react to internal changes or market externalities.



How real-time accounting is revolutionising business decision-making

There is nothing worse than making decisions in business with incorrect or outdated information. Businesses spend billions acquiring information from external sources, be it trade data, market information or consumer preferences etc. With such a focus on external data streams however, companies can lose sight of internal information avenues, thereby adversely affecting management decision-making.

Internal information however, does not just have to consist of inventory levels or revenues, it includes all data points required to make decisive and accurate business decisions in real time, an aspect that can sometimes get overlooked. New technological developments and the rapidly increasing pace of business however can now redress the balance.

Real-time accounting for real-time decision-making

The balance sheet is supposed to be a snapshot in time. However, this does not necessarily mean the snapshot should be taken only at a quarterly or annual frequency. Cloud computing allows even a widespread organisation to maintain a real-time picture of all cash flow, P&L and balance sheet items, enabling management to make informed decisions on real-time information.

Real-time accounting can also assist in other ways. One primary application is in the rapid detection and even prevention of fraud by real-time monitoring. Some organisations go a step further and deploy AI algorithms to automatically scan the information in real-time and flag any suspicious entries or transactions. By catching fraud or other mistakes quickly, the impact can be contained and minimised.

Finally, having a real-time picture of assets and liabilities helps to optimise cash flow management and increases operational and financial effectiveness.

It's easier than ever!

What is making real-time accounting ever popular is how easy it has become to implement. Previously, the best a business could do was to maintain a server to which all staff regularly uploaded their data. However, this is a cumbersome process, especially for smaller organisations.

Enter the cloud computing solution. There are now dozens of web-based, real time budgeting planning and reporting platforms that stay updated 24/7, producing their entire arsenal of pre-formatted reports in real time. You can have half a dozen pie charts showing various statistics and figures updated up to 10.55am for a meeting at 11am!

There are many other additional benefits of using a cloud-based system:

- Infinite scalability - there is no need to ever upgrade servers or bandwidth
- Any software upgrades are deployed automatically and become available instantly (say goodbye to Office 2010!)
- It almost always costs considerably less than compared with other alternatives
- The systems are usually more intuitive and easy to use. And because the developers take feedback from thousands of customers, the tools keep getting better and better.

Conclusion

With each passing year, business technology becomes faster and faster. Product cycles which used to last for decades, can now ebb and flow in a matter of months. The fortunes of companies can change within a matter of weeks as new competitors spring up from anywhere in the world without warning. In such a competitive business environment, where information decays at a faster rate than ever, real time accounting is the smart choice for the business that wants to remain agile.

Thank you

if you enjoyed this guide,
then look out for the next
one...

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