

Advanced Automation

AI and its application in the world of Tax & Accounting

Nic Humphries, Søren Holt and Jean-Baptiste Brian of Hg's technology team.

The growth of enterprise resource planning (ERP), tax and compliance software has historically been driven by a requirement to help move businesses away from paper-based processes, to software-led workflows.

Hg has seen this evolution first hand, investing in this global growth story across the last two decades. This growth has been rapid and consistent, with thousands of small and medium-sized enterprises (SMEs) across the world now operating more efficiently, after digitising previously onerous processes.

Today we see demand for these services as showing further structural growth, whilst innovation in software and technology is certainly not standing still - so what's the next big theme?

Hg sees the application of artificial intelligence (AI) having a significant impact on the evolution of the Tax & Accounting universe over the next few years – and we're already seeing continuing development of this technology across the businesses we partner with.

Advanced Automation and AI

As a specialist software and technology investor, Hg is seeing applications of AI filtering into many of the sectors that we operate in. However, despite being well-covered, AI remains ill-defined.

The early AI 'revolution' was epitomised when computer scientists created a programme that could consistently beat a reigning world chess champion in a six-game match - but few people recognise this as AI today. Add into the mix 'Machine Learning', a subset of AI applications which is often used interchangeably with AI, the confusion grows.

We prefer the concept of 'Advanced Automation', especially in relation to the Tax & Accounting universe. For us, this covers the high levels of software automation that we're seeing in this sector, typically enabled by computing techniques from the field of AI. This is rapidly making its way into core Tax & Accounting applications, resulting in a giant leap in productivity for its users.

Augmentation, not substitution

Despite a proliferation of start-ups and unicorns within this field, we're not seeing many standalone products conquering the space. Instead we're seeing AI applications that augment existing products.

Look at how AI innovation is improving the quality of core applications in other fields of tech, like Google Maps & Gmail, rather than creating new, separate products under an 'AI' brand. Similarly, in a Tax & Accounting context, we do not foresee many new products arising. Rather, we expect a wave of product augmentations to come forth, primarily powered by Advanced Automation.

The Development of Advanced Automation

Like the prior evolution in Tax & Accounting software, we expect Advanced Automation to continue to make bookkeepers and accountants more productive at their work, and thereby better competitors in their industries.

Then, as these products strengthen and become part of a core offering, demand will grow - gradually moving from a 'nice-to-have' feature to a 'need-to-have' service from software vendors. We can already see this happening and it will only become more pronounced over the next few years.

As a result, for the vendors of this software, Advanced Automation products and services are likely to become a 'hygiene factor' – they will need have this offering in order to remain shortlisted by their buyers.

It's therefore vital that these businesses are developing this technology now - ahead, rather than behind, the curve – in order to remain competitive.

The future of Advanced Automation

It is said that "necessity is the mother of invention" and we can certainly see how this applies to AI. The volume of underlying ERP data alone is approximately doubling every 18 months. As this increases, the human ability to meaningfully process data, without proper data processing software tools, is significantly reduced, even for the best accountants and managers.

For Hg, this ever-growing complexity in the audit process, alongside the great strides of innovations we're currently seeing in the market, gives us confidence that there will be a new wave of Advanced Automation developed to meet this demand, drive change and generate material value in millions of businesses globally.

AI CASE STUDIES ACROSS THE Hg PORTFOLIO

Hg are currently partnered with a number of large players in this space and we can see strong progress being made in developing these capabilities. There are three main themes: improving customer productivity, improving customer service and combating accounting errors and/or accountancy fraud.

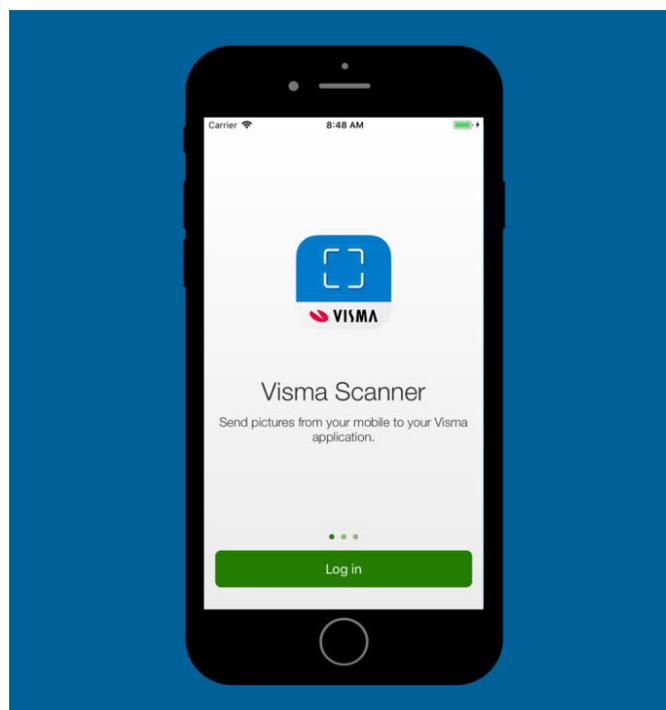
1 Customer Productivity

Visma, an industry champion in Nordic and Benelux ERP, with more than 8,500 employees and 850,000 customers, has adopted AI into many of its core products, with the aim to continually reduce costs through further automation of internal processes, whilst also improving the customer experience. They have approximately 200 developers working full time on automation projects, with a strong pipeline of new applications across Visma's business areas.

A recent example includes 'Visma Scanner', which scans customer receipts almost instantly, reading the key details of the receipt and inputting this information into an expense management system. Visma's 'AutoInvoice' is an automation tool within electronic invoicing, which currently serves well over 100,000 users in their real time, business-to-government reporting, helping to save 'people-hours' via greater automation in their AP / AR functions.

TeamSystem is a leading provider of business-critical, regulatory driven software products to c. 250,000 accountants, HR professionals and SMEs in Italy. TeamSystem are also developing automated scanning and document recognition services for its customers, combining classic optical character recognition (OCR) with modern machine learning practices to create a product which improves day by day – saving significant time for customers and increasing customer productivity. This already has accuracy of around 75% - constantly improving thanks to machine learning.

Tommaso Cohen, CEO Office at TeamSystem, said: "TeamSystem's core strategy includes investing heavily in R&D to support the constant improvement and growth of our products and services. A key part of this is technology, which we look to evolve in order to improve the productivity and experience of our customers. Machine learning plays a big role in some of our latest projects and development of this technology is vital to stay competitive in this space."



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Tommaso Cohen, CEO Office at TeamSystem



2 Customer Service

Visma has also built an engine which, with 95% accuracy, can automatically distribute customer support tickets to the correct customer support team, based on message content – saving significant time and therefore better servicing customer enquiries. Third party chat bots have also been developed to provide customers with further assistance, reducing the need for internal support by around 20%.



Today, over 200,000 Visma customers are using a product that applies [machine learning]. All of these products have a common aim - to solve problems faced by our customers.

Jostein Håvaldsrud, R&D Director for Visma Software



TeamSystem have invested in chat bot technology to help improve customer service as well. The service is being developed to improve and learn, supporting TeamSystem's accounting customers, facilitating the exchanging of documents in a safe environment and generally providing additional support.

Jostein Håvaldsrud, R&D Director for Visma Software, said: "Most software is equal to all users, unless customised. Machine learning is one way of achieving this. It can be used to analyse patterns of usage, then predict the next step of users, and also guide them. At Visma, we're using machine learning heavily in chat-bot services and we are testing out speech-recognition to interact with our software. Machine learning can also be used to eliminate manual work related to input of data. Today, over 200,000 Visma customers are using a product that applies this technology. All of these products have a common aim - to solve problems faced by our customers."



Checking for Data Anomalies

IRIS is a leading provider of critical software solutions for Tax & Accounting in the UK, serving over 20,000 accountancy practices. In 2018, IRIS launched 'IRIS AI', a family of products and services for its customers. The first product in this offering, 'Ai Auditor™', was developed by MindBridge Ai. The product scans the entirety of a client's general ledger for any potential errors using a hybrid of machine learning and AI techniques, vastly improving on legacy / manual spot checks, and is saving SME businesses from administrative errors. Ai Auditor is also proving effective at checking for fraud, giving accountants a further layer of comfort that no fraudulent behaviour has taken place.

Elona Mortimer-Zhika, Chief Operating Officer, IRIS Software Group, said: "AI is generating a lot of interest among accounting and finance professionals and there is an appetite to reduce repetitive, time-consuming and redundant tasks to free up capacity for more lucrative, added-value consultancy for clients. We believe firms can transform their practice by unlocking client and practice data to deliver advisory-based services, and generate more business opportunities to empower accountants to thrive in the digital accountancy economy. Our relationship with MindBridge Ai in bringing Ai Auditor to the UK market is a big stride in this direction."



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Elona Mortimer-Zhika, COO at IRIS Software Group



Hg's investment in Tax & Accounting

Hg is a sector expert investor, committed to helping build ambitious businesses across the technology and services market in Europe and the US.

Hg's team of over 60 technology focused investors and operating partners is the largest and most experienced in Europe. These deeply resourced sector teams focus on specific sub-sectors and investment themes to identify companies which have the potential to grow, create employment and become a leader in their space.

Hg made its first investment in the tax and regulatory compliance software market in 2004. Since then Hg have invested in over 11 platform companies and more than 200 acquisitions – we currently own businesses worth over \$10bn in this sector including IRIS, Visma and Sovos. This clustered investment strategy gives us unique insights and experience which benefit the companies we back, their customers and their employees.

