The digital economy and SAP's answer to its exigent demands
An IT perspective

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01. Introduction

Digital has come a long way since its advent into the world of business. It is now an all-pervasive force of nature, possessing the power to make or break economies.

While it was an already complex phenomenon to begin with, digital is now infinitely more so. The sheer quantum of raw data, information and intelligence suspended in the luminous digital miasma, with the potential to serve or slay companies, is colossal. Every single day, the world creates a bedazzling 2.5 quintillion bytes of data. This means 90% of the data extant in the world today has been created over the past two years alone. Social media generates about 500 million tweets and 4.7 billion updates on Facebook every day. By 2020, an astonishing 50 billion devices are expected to be connected and share a common matrix of information.

Of course, all of this is common knowledge. There are hardly any works of modern technological literature that don't contain a mention of digital and its entailing complexity. However, the way in which businesses, in particular, are viewing the ramifications of complexity on such a great scale, is rarely captured in all its urgency and immensity. This is the issue that shall be addressed in the following sections of this note.

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BIG DATA
How will it affect your business and your people

We create

2.5
Quintillion

bytes of data every day

Every 2 Years

Double in size

90%

In the last 2 Years

Source - bcs - The Charted Instiuite for IT

02. Rising complexity of the digital universe

A recent study was conducted by the private US research university, Massachusetts Institute of Technology (MIT), encompassing 70 companies operating in diverse realms – manufacturing, financial services, retail and so on. 92% of these companies assigned first rank to complexity among the most crucial areas of business risk. 95% said they expected complexity risk to increase manifold in the next two years.

Just as alarming is the fact that 60% of business managers cite complexity as the reason for the upshot in operational costs by 11%. 200 of the largest companies in the world are foregoing 10% of their annual profit – over $315 billion – due to complexity.

So what do companies do in the face of such seemingly insurmountable barriers posed by digital? What is the weapon to wield in such a scenario to successfully conquer the technological wilderness? The answer lies in the question itself and the origin of the problem is also the solution – technology.

It is companies that are unafraid to look digital complexity in the eye that are succeeding in today's ultra-competitive markets – and are poised to win in the long run too. Far from shying away from the potential threat of falling behind in the digital race, these companies embrace the unprecedented edge offered by digital to companies that are ready to take advantage. Research reveals that companies who have plunged into the digital arena and evolved a strong digital strategy, record rise in revenues by 9%, profitability by 26% and market valuation by 12%.

However, despite such resounding evidence to the contrary and despite research exhibiting that 90% CEOs themselves believing digitally-driven complexity will have an impact of great magnitude on their sector, only 25% of CEOs have a plan in place and less than 15% are allocating resources to and implementing a digital strategy. It is these 15% who beat the inertia to change, it is the companies who are opening up and looking to taking the digital challenge head on immediately, who will acquire a mammoth, sustainable lead over all the rest.

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The Digital Advantage

Profitability

Market Valuation

Revenue

9%   26%   12%

03. SAP's digital transformation strategy

The cornerstones of the digital revolution are unlimited connectivity, internet of things, big data, in-memory technology and cloud computing. Companies seeking to establish themselves at the forefront of their respective industries by harnessing digital, would imperatively need to conceive a concrete and comprehensive strategy that manages the complexity pursuant to all of the above concepts.

Successfully solving complexity requires a futuristic simplification apparatus, which is designed with an in-depth comprehension of the digital universe and its workings. Equally significant in the process of architecting this apparatus, would be flawless understanding of the company, its sector, its markets and their functioning. SAP had precisely this in mind when it devised a product strategy for the digital-friendly customer.

The three key facets of the strategy were

Platform – the base on which to construct and expand applications, which would help the customer position itself to gain unlimited access to data

Application – the interactive modules that are sophisticated, interconnected and interpret the inputs provided by the value chain to drive decisions

Network – extending beyond the confines of the company, retrieving information from external entities spread over various geographies and feeding the internal applications

It was SAP's prerogative to drastically diminish complexity and bring it down to a minimum by a process of paradigm simplification across these vital facets. This laid the foundation for S/4 HANA – SAP's next-generation business suite, tailored specifically to cater to the demands of digital transformation.

OPEN PLATFORM INNOVATIVE APPLICATIONS CONNECTED NETWORK

BREAKTHROUGH
HANA

04. Re-defining enterprise software in a digital context with S/4 HANA

This new-age suite from SAP, S/4 HANA, operating on SAP's HANA database, is based, in line with the three-pronged strategy above, on a three-pronged offering:

Massively simplified data model – The data model of legacy systems contain numerous tables for storing derived data i.e. data obtained by manipulation of those contained by other tables. This was done to spare the system as much computing power as possible. However, this resulted in over-complication of the data setup, compromising on flexibility and efficiency. Such a system is certainly not conducive in an organization bent upon utilizing the vast digital data sources available today. In S/4 HANA, such redundant tables have been eliminated, thus simplifying the data model to a never-before degree.

Importantly, SAP has retained the fundamental schema underlying the legacy data model in S/4 HANA. This ensures a seamlessness in integration with existing systems superior to any upgrade in the past.

Fiori power – S/4 HANA is completely enabled by Fiori, its UI platform. Fiori provides a smart and simplified user experience. It counteracts the digital complexity with its innately intuitive logic and thus presents an easy-to-use, human-friendly interface. This leads to quantum jumps in usage rate on all devices.

Guided configuration – Because S/4 HANA is equipped with pre-engineered integration, each application has a bird's eye view, so to speak, of the system as a whole. This means that, the system makes inferences from the common knowledge base as to upcoming configuration steps to be taken by users and suggests the same to them. Its guided configuration thus makes implementation and running of S/4 HANA exceedingly easy, besides rendering it very conducive to change. This is critical in a digital-oriented setup that is omni-channel and demanding high levels of connectivity.

Therefore, S/4 HANA is the single ultimate solution – facilitating the convergence of all functionalities and Line of Business (LoB) solutions in a single system, operating on a single platform, built on a single database - and specially designed for companies going digital. All of SAP's Line of Business cloud solutions are offered as packages which, when opted for, are smoothly integrated with the digital core viz S/4 HANA.

In addition, every transaction in S/4 HANA is governed by analytics and reporting, new business processes are enabled and the existing ones are recast into an agile, adaptable form, thus making S/4 HANA a pioneer that redefines enterprise software in a digital context.


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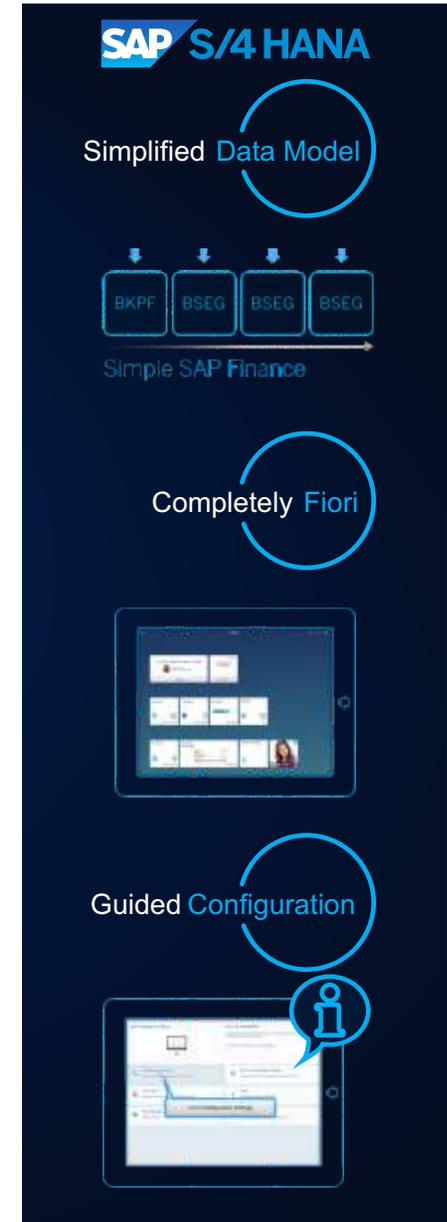
05. Simplicity-driven S/4 HANA's next-generation solution to digital challenges

There are three capabilities integral to HANA, which have been specially incorporated in its foundation to create the perfect digital canvas for the single greatest function on which all of business hinges – decision-making. They are :

Text Mining

There are thousands of millions of emails and other textual correspondence material adrift in the virtual plane. In the very near future, one of the prime determinants of competitive advantage will be companies' ability to analyse and glean information from this mass of unstructured information. S/4 HANA possesses the textual mining capacity to dissect vast deposits of unstructured material, derive the sentiments from the text and inject it into structured information, thus bestowing businesses with a capability that will stand them in good stead in the digital present and future.
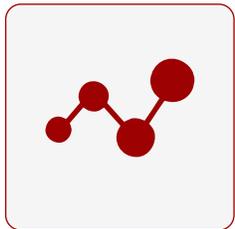
Analytics & Prediction

In engendering forecasts both in the short term and over long, extended time periods, analytics and prediction systems are indispensable to businesses. By giving such insights into the future, these systems bring to businesses the greatest competence of them all – the ability to anticipate and forestall the needs that are to arise. S/4 HANA possesses powerful analytics algorithms, further strengthened by its innate connectivity and the ability thereof, to obtain the pulse of every function and sub-function of the organisation and to crunch oceans of data. It thus turns out highly reliable, organized predictions perfectly aligned with the needs of each organizational entity. For instance, in the finance forte, S/4 HANA forecasts cash balances, requirements and implications of liquidity strategies among several other aspects, with matchless consistency.
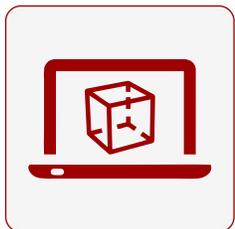
Simulation

Better yet, S/4 HANA creates simulations based on the results of its analytics systems to understand with impeccable clarity the consequences of events. It simulates the circumstances arising when hundreds of thousands of events occur simultaneously and the multitude of permutations of the same. For instance, in the event of several thousands of orders being closed simultaneously by a manufacturer, the system performs a simulation of the capacity situation and resultant bottlenecks (if any) .This way, the company may thus be prepared for any conceivable contingency within the realm of possibility.

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06. The S/4HANA value proposition

The core value proposition of the various S/4HANA line of business solutions in context of the digital revolution are captured below –

SAP S/4HANA Finance

Ensure one source of the truth for finance and operational data and run prediction, simulation, and what-if analysis to continuously improve planning.

SAP S/4HANA Human Resources

Manage your entire workforce, from employees to contingent workers, with a complete system of engagement.

SAP S/4HANA Sourcing and Procurement - Manage direct materials, indirect goods, services, contingent labor, and travel from a single platform.

SAP S/4HANA Supply Chain

Support monthly S&OP planning cycles with real-time data and what-if scenarios. Sense short term demand and respond quickly.

SAP S/4HANA Manufacturing

Identify critical material issues, options, and consequences. Maximize enterprise-wide visibility across supply, production, inventory, and demand.

SAP S/4HANA Research and Development (R&D)

Enable a multi-discipline product definition and run what-if analysis and iterative design processes.

SAP S/4HANA Asset Management

Predict and prevent downtime by analyzing data generated by machines and sensors in addition to business data.

SAP S/4HANA Sales

Effectively manage accounts, opportunities, and other activities – and maximize sales insights with advanced analytics.

SAP S/4HANA Marketing and Commerce

Consolidate customer information into one enriched view, and leverage advanced analytics to gain insights.

SAP S/4HANA Service

Leverage onpremise systems of record to quickly resolve customer issues or execute service orders

07. The inevitability of the Cloud ERP

Cloud computing is one of the pillars of the digital era and companies across geographies and industries are racing to reap its abounding benefits. Recent studies conducted by various agencies of repute all substantiate the same and highly recommend cloud adoption. A compilation of key results of Cloud ERP studies conducted by Gartner, PwC and Forbes

1 • A total of 47% of organizations surveyed planned to move their core ERP systems to the cloud within five years.

2 • By 2017, 70 percent of organizations adopting hybrid ERP will fail to improve cost-benefit outcomes unless their cloud applications provide differentiating functionality

3 • By 2018, at least 30 percent of service-centric companies will move the majority of their ERP applications to the cloud

4 • By 2020, cloud ERP spend will overtake on-premise ERP spend

5 • Net new license revenues for traditional ERP systems have been declining since 2013 to a level that has already been surpassed by global revenue from cloud-based SaaS solutions.

6 • Capitalizing on the many different cadences customers have, instead of trying to push everyone into a one-size-fits-all customer experience, is integral to Cloud ERP – this offers businesses far more flexibility and personalization possibilities than the alternative.

7 • The more complex a firm's supply chain, distribution, selling and service channels become to support new business models, the more critical mobility is. The Cloud is more conducive to this sort of complexity and requirements of fluidity than traditional offerings.

8 • Cloud helps in achieving faster time-to-market while reducing cost of quality

9 • Legacy ERP systems lack the scalability catered by cloud to support 21st century compliance

10 • SaaS-based manufacturing and distribution software will increase from 22% in 2013 to 45% by 2023.

The reports assert that the dramatically reduced infrastructure and resources costs coupled with the freedom from maintenance hassles, holds an irresistible lure for businesses.

08. S/4 HANA Cloud & business benefits

Cloud is the way forward in the digital universe and in keeping with this reality, the Cloud version of S/4 HANA has been created. SAP has invested great efforts in rendering the Cloud migration process as simple, fast and convenient as possible, regardless of customers' existing setup.

If the existing system is an on-premise operating on databases other than HANA, they simply need to transition to HANA, followed by deployment of a simplified application called 'exchange innovation' and they're on the cloud with immediate effect. In case an on-premise customer is already operating on HANA, cloud migration is as quick and easy as deploying the exchange innovation application. The same procedure applies for a migration from an existing cloud setup to the S/4 HANA cloud version.
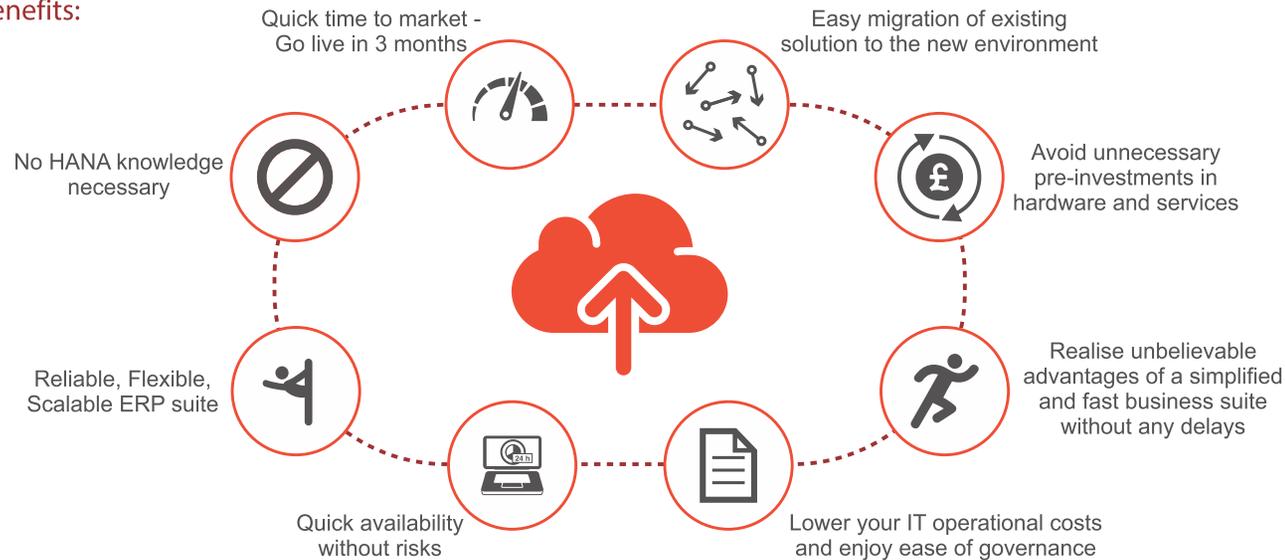

To highlight a few of the more significant advantages of hosting S/4 HANA on the Cloud –
- Swiftness of implementation – The simplified cloud configuration procedure developed by SAP allows for rapid deployment of S/4 HANA on Cloud. The configuration is guided closely by the system, requiring only following of a set of sequential instructions for successful implementation. SAP has created an exhaustive batch of scripts and templates for every format of data that needs to be transferred, rendering the usually tedious data migration process as accelerated and free-flowing as possible, bringing the need for human intervention down to a minimum.

S/4 HANA Cloud & business benefits (Contd.)

S/4HANA Cloud - Salient Benefits:

Quick time to market -
Go live in 3 months

Easy migration of existing
solution to the new environment

No HANA knowledge
necessary

Avoid unnecessary
pre-investments in
hardware and services

Reliable, Flexible,
Scalable ERP suite

Realise unbelievable
advantages of a simplified
and fast business suite
without any delays

Quick availability
without risks

Lower your IT operational costs
and enjoy ease of governance

- Eliminating redundancy – In legacy systems that have been in use over a prolonged period of time, the amount of obsolete code would have accumulated gradually to now reach a high point. As times change, so do processes and therefore, entire systems. Every time this happens, some of the code written exclusively for the historical processes become redundant. It serves companies well to regularly perform a cleansing, wherein only strictly necessary code is retained and the rest is discarded. An up-to-date version greatly increases system efficiency and reduces support and TCO costs. However, such a catharsis of the non-cloud ERP is long-drawn and manual effort-intensive. The S/4 HANA cloud, however, besides bringing companies the very latest version of the code corresponding to their business needs, also offers peerless flexibility in terms of updating the code to suit the most current business needs.

- Extensibility to LoBs – The various LoB cloud solutions are available as packages that may be deployed on the S/4 HANA Cloud whenever the customer wishes to. For instance, if the company wishes to opt for SAP's HR Cloud solution, SuccessFactors, now and go for the CRM Cloud solution, C4C at a much later date, it may very conveniently do so due to the package-form offer. It may implement the former now and purchase the C4C package whenever it sees fit. When the time for the C4C implementation comes, the integration with the rest of the S/4 HANA apparatus is exceedingly simple and efficient, thanks to the setup being pre-engineered in such a manner as to allow easy latch-on by these appendages.

■ SAP strongly suggests S/4 HANA Cloud version for best results, owing to the inherent alignment of the suite with the platform. In addition, SAP follows a cloud-first strategy implying that SAP prioritizes the Cloud for all enhancements, upgrades and support offered post deployment. For instance, the upgrades released by SAP on a quarterly basis to augment functionalities are first made available for the Cloud followed by the on-premise version. SAP's spree of Cloud-based acquisitions for different LoBs, also go to show that the Cloud is intended to be the prima donna of its portfolio.

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09. Conclusion

The digital revolution is changing the way business is done every day and it is those early bird companies that board the bandwagon now, while their competitors are still mystified by it, who will emerge the winners of the future. SAP's S/4 HANA offers mighty potential for success on numerous fronts with digital, one of the most significant being the real-time insights generated by its in-memory computing competence. It is also of supreme importance that the best-fit implementation partner be chosen. A partner with the experience, resources and skills to deliver solutions specially tailored to individual customer needs is imperative for the venture to be a success. Such a partner will spark completely unique, out-of-the-box ideas on ways to leverage the digital revolution. Also, the right partner with long experience and a deep understanding of the relevant industry and market, will recommend and help execute best practices carried out by various players.

Digital is therefore all set to be one of the greatest driving forces of tomorrow's economy and is here to stay. And the hand that picks the right technology and knights the right partner, is the one that shall rule the world.

About Kaar

Kaar Technologies UK Limited is a pure-play SAP consultancy, providing licensing, implementation, hosting and support services par excellence to businesses around the world.

We're one of the exclusive few SAP-certified vendors of S/4 HANA Cloud, SAP's next-generation business suite, with a tremendous adoption momentum in the United Kingdom. Moreover, we have implemented S/4 HANA Cloud within our own organization with great success and achieved immense business benefits. Our solution thus being created, owned and driven by us in every respect, enables us to bring unequalled, first-hand expertise and experience to our clients – not only in terms of implementation but also in terms of architecting solutions tailor-made to their needs.

CMMI3

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