TATA CONSULTANCY SERVICES

Using Emerging Technologies to Build NextGen Shared Services

Abstract

When new technologies are combined with creativity, they fuel innovation and disruption. In the shared services space, blockchain, machine learning, and robotic process automation help develop and adopt the new integrated business services model. This model turbocharges the organization's people, processes, technology, and business functions using cutting-edge solutions that catapult it ahead of competitors and optimize resources.

Rich with examples, this paper makes a case for achieving nextgen shared services by deploying emerging technologies such as blockchain, artificial intelligence, cognitive automation, robotic process automation, analytics, and cloud computing across multiple business functions to enable new business models, transform the finance and supply chains, and generate fresh insights.

Integrated Business Services (IBS) are Here to Stay

The advent of emerging digital technologies, such as robotic process automation (RPA), analytics, machine learning, cloud, and blockchain, is transforming the shared services landscape. Most large global businesses that use shared services models for a range of business functions, from finance and procurement to HR, are revamping the way they structure their support ecosystems. The convergence of a set of digital capabilities encourages organizations to abandon the individual or shared functional silos of the traditional shared services model. Instead, they are adopting a new integrated business services (IBS) model. When applied across functions such as finance, IT, HR, procurement, security, field operations, and others, it forms the basis of multi-functional integration. It has the power to transform business performance and become the gold standard of providing business services.

Successful adoption ushers in savings through improved operational efficiency while also setting the stage for future growth and acquisition activity.

Blockchain is a Paradigm Shift in Finance and Accounting (F&A)

The blockchain technology is transforming the way in which data is stored, verified, and accessed. Enabled by digital technology, a blockchain is a form of ledger that records data or transactions in a chronological order. The ledger is automatically replicated and maintained by each participant to create a decentralized, consensus controlled, tamper-proof public ledger of assets and transactions. Blockchain is set to revolutionize finance and accounting. Unlike current financial transactions, blockchain does not rely on any single party, middleman, or regulatory intermediary. Consensus authentication drives blockchain as the record of transactions is shared among all parties. The transaction becomes more secure and transparent.

This transformation will be far reaching. According to Outlier Ventures, around 250 major corporations are active in blockchain, either through in-house developments or investment in start-ups, accelerators, and consortia[1]. All major banks, as well as Visa, Mastercard, and Nasdaq, are working on blockchain. Dynamic startups such as Ethereum, Blockstream, Ripple, DAH, and Abra are likely to make a big impact as the opportunity evolves.

One advancement that blockchain enables is a move to triple-entry bookkeeping. Triple-entry bookkeeping is a new development in accounting that will eradicate the need for expensive, time-consuming duplication of processes between two parties during a transaction. The existing accounting process is streamlined. The distributed ledger will do away with the exchange of invoices and receipts, and their manual entry into individual accounts. Instead of entering transactions separately into independent sets of books, they are automatically, reliably, and efficiently updated in a third ledger, shared between both parties. Using digitally signed receipts and cryptographic authentication, the third ledger is inherently approved by and accessible to both parties. Figure 1 illustrates blockchain's authentication process.
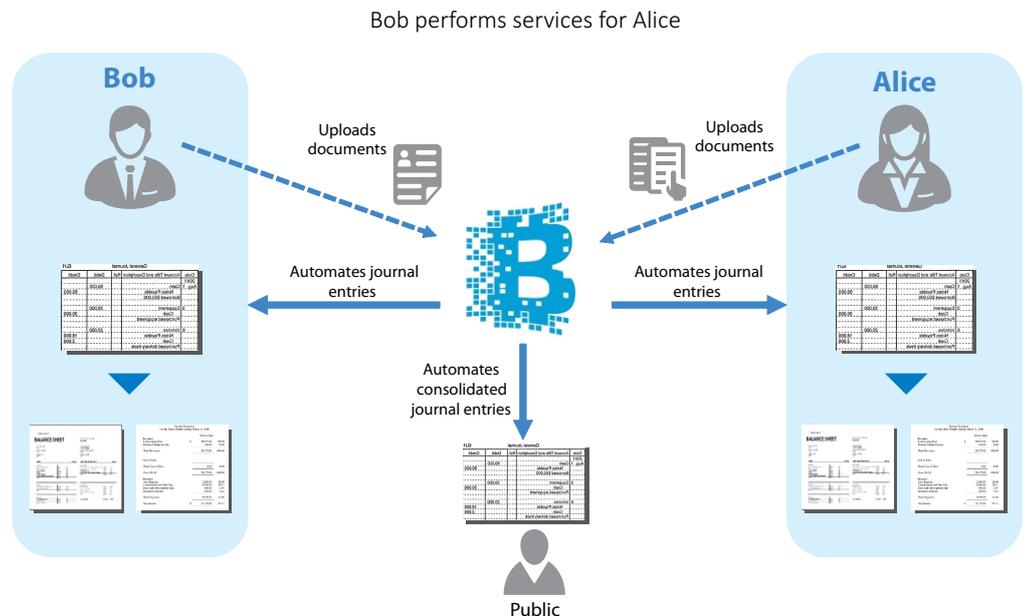

Figure 1: Blockchain in Action

Triple-entry accounting combines the simplicity and efficiency of single-entry bookkeeping with the accuracy and accountability of double-entry bookkeeping. By maintaining a third, automatically consolidated journal within the blockchain, an interlocking system of enduring accounting records is created.

A number of startups are already driving innovation. Balanc3 offers a system for business invoicing, accounting, documentation, and payment powered by blockchain-enabled smart contracts[2]. Similarly, Tallysticks is using blockchain to pare down the effort involved in invoice financing and payment reconciliation throughout the entire supply chain to drive wider efficiencies[3].

Blockchain has applications outside of F&A and is fast becoming a conduit for implementing an integrated business services model. The enhanced visibility the blockchain offers makes it much easier to oversee even complex supply chains. The ability to track and trace shipments can reduce errors and disputes, while the instant provision of digital letters of credit and bills of landing can revitalize logistics. Automated smart contracts reduce paperwork and delays, and improve cash flows throughout a supply chain. Platforms such as that offered by Skuchain or Hijro bring new levels of transparency and security to supply chains[4]. They provide optimal planning and agility for downstream buyers and working capital relief for upstream suppliers.

One area in which blockchain is clearly unifying disparate parts of businesses is in security and field operations. Every asset, device, and worker can be issued a blockchain-backed digital identity as part of an enterprise-wide trust network. This allows instant monitoring and authentication for every worker across every asset in the business, reducing the likelihood of security failure by removing any single point-of-failure.

By enabling different elements of a business to be ever more intimately connected, blockchain can power the future of heavily integrated shared services. While the potential for blockchain to transform businesses is considerable, a lack of awareness about the technology among business leaders and regulators is hampering widespread adoption. The emergence of a viable business network or consortium, with agreed upon business-to-business standards for blockchain platforms, will accelerate adoption.

Artificial Intelligence (AI), Cognitive Automation, and Robotic Process Automation (RPA) are Changing the Game

RPA, when combined with AI, goes beyond simply boosting efficiency and improving productivity in mundane tasks. RPA and AI together can undertake high-value, complex activities with great accuracy. The audit trail is clear and requires minimal human oversight. The use of RPA and AI in shared services is creating new operating models that free up the human workforce to focus on value-adding activities such as high-level analysis, planning, and decision-making.

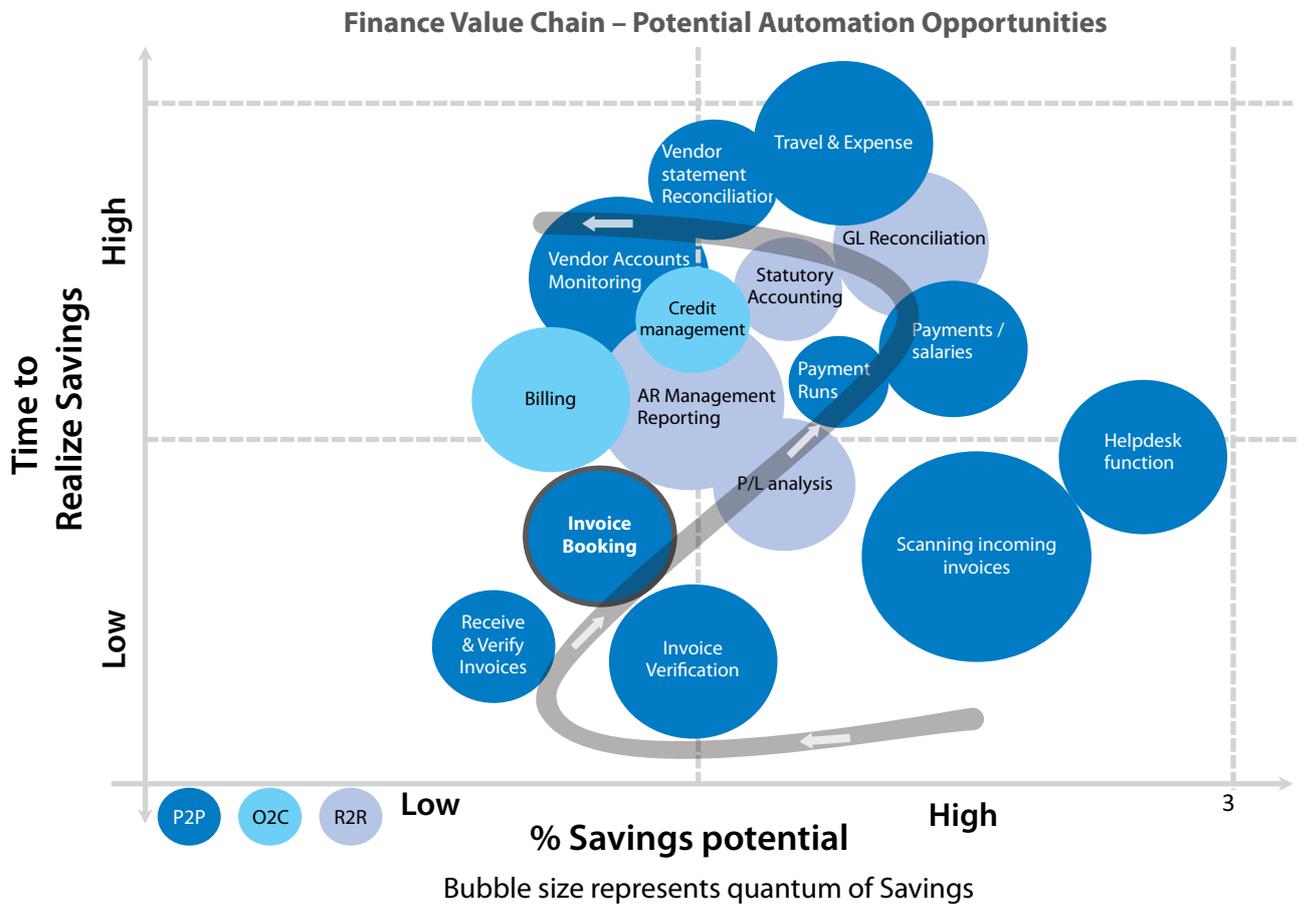Figure 2 shows the potential of robotic process automation.

Finance Value Chain – Potential Automation Opportunities

Bubble size represents quantum of Savings

Figure 2: Savings Potential and Time to Achieve Results through Automation

New operating models enabled by RPA and AI are likely to define business success in the near future. According to TCS' Global Trends Study on AI, 84% of the companies surveyed are using AI, and 62% view the technology as being important or highly important to remaining competitive by 2020. One in two executives at these companies see the technology as 'transformative' and identify a clear correlation between investments in AI and impact on their business[5].

Cloud Computing is Enabling Transformational Efficiencies

Cloud computing allows businesses to be better connected. A cloud-based IT environment supports the integration of end-to-end operations. It provides a better overview of business finances and saves production hours by eliminating the need for reciprocal manual data entry.

By letting people work together in real-time, regardless of their location, cloud computing promotes greater collaboration

among team members. With cloud services becoming increasingly secure, businesses are starting to use internal social media for collaborative accounting.

Collaborative accounting is able to draw together multiple data sources and formats to deliver insights. Social platforms develop institutional capabilities across the organization and they improve workplace harmony by allowing employees to develop connections and networks, which are a boon to the introduction of integrated shared services.

Analytics is Reinventing Shared Services

Shared services deliver radical efficiencies by streamlining and improving operations. Yet analytics can go beyond simply cutting costs. It can add value to a business by reimagining business processes. Using well-calibrated data inputs as a reporting foundation, analytics can provide insights on customers and products, and digest social media to improve responsiveness. It improves business planning.

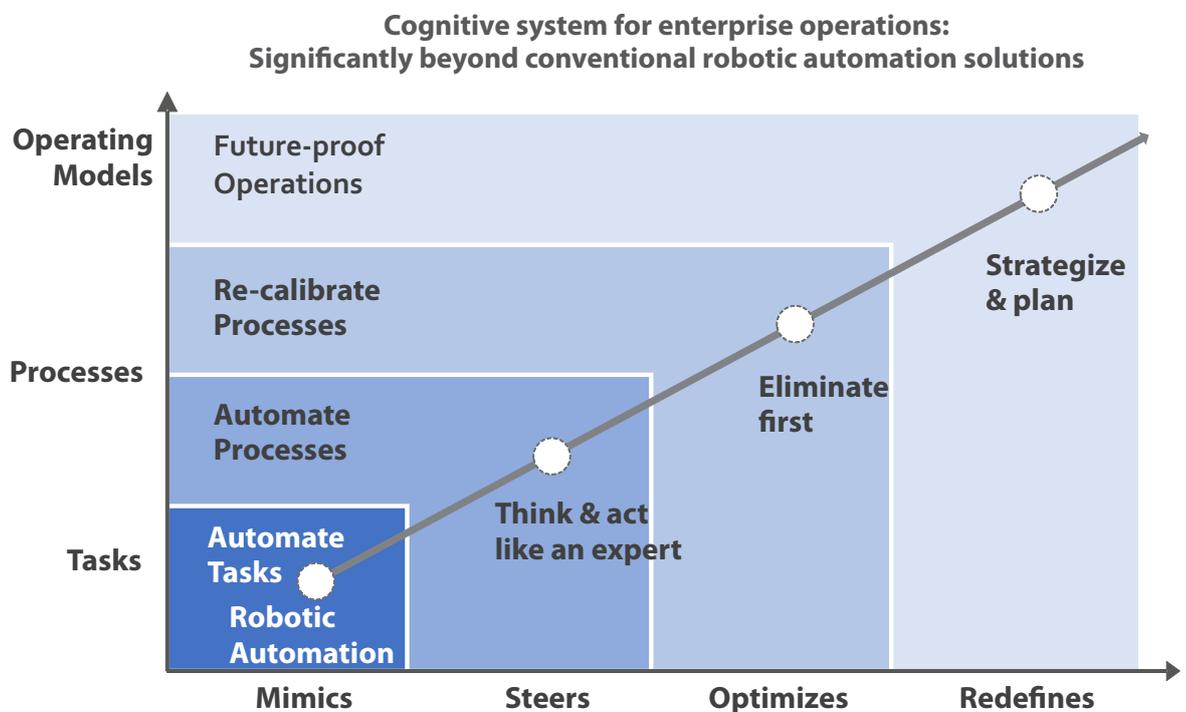Figure 3 shows the potential of automation through cognitive systems.

Cognitive system for enterprise operations:
Significantly beyond conventional robotic automation solutions

Figure 3: Cognitive Systems Go Well Beyond Traditional Robotic Automation

When combined with cognitive automation and machine learning, analytics drive continuous optimization and reinvention of shared services, especially in finance and control data.

Initially, by gathering and reporting data, analytics are descriptive and produce a visualization of existing data. In the predictive analytics stage, AI combines existing data with models to produce forecasts of future performance. These predictions allow management to act accordingly across the range of functions managed under a shared services model.

At its most advanced prescriptive analytics, with machine learning and automation, analytics enables the system to autonomously act upon its predictions. Identifying and initiating optimizations, AI institutes the changes that encourage the best possible outcome. In pursuit of optimum efficiency and maximum performance, shared services operating models can be redefined by AI analytics.

Capitalize on Emergent Technologies and Bolster Your Growth Opportunities

Digital capabilities are essential to the transformation of integrated shared services. Technologies such as RPA, blockchain, cloud, and analytics create an opportunity to revamp business functions by implementing integrated business services. These technologies bring efficiency and insights that drive business agility and produce an interconnected, intelligent enterprise. With applications across enterprises, from F&A to field operations, digital technologies make faster and smarter business decisions possible with a positive impact on the bottom line.

Businesses should streamline finance processes with blockchain technology, and simplify financial records with triple-entry bookkeeping. New operating models powered by AI, cognitive automation, and RPA will enable preparedness for future challenges and opportunities. Using cloud to better integrate business processes will help organizations enjoy the benefits of collaborative accounting. Businesses must deploy analytics to sharpen responsiveness to changing market trends, improve forecasts and prepare more effective business plans. It's time to get future-ready.

TATA CONSULTANCY SERVICES

References

[1]   Outlier Ventures, The Blockchain Corporate Tracker, accessed October 14, 2017, https://outlierventures.io/research/blockchain-corporate-tracker/   and https://outlierventures.io/corporate-blockchain/browse/

[2]   Cryptoninjas, Balanc3 launching 'Quickbooks' for cryptocurrency and blockchain assets, September 23, 2017, accessed October 16, 2017, https://www.cryptoninjas.net/2017/09/23/balanc3-launching-quickbooks-cryptocurrency-blockchain-assets/

[3]   Euromoney, Blockchain Allows for Invoice Secritization, October 27, 2016, accessed October 16, 2017, https://www.euromoney.com/article/b12kq9j2dykyyc/blockchain-allows-for-invoice-securitization

[4]   Nasdaq, Seven Industries That Blockchain Will Disrupt in 2017, January 17, 2017, accessed October 16, 2017, http://www.nasdaq.com/article/seven-industries-that-blockchain-will-disrupt-in-2017-cm734366

[5]   TCS, How 13 Global Industries Use Artificial Intelligence, September 2017, accessed: October 14, 2017, http://sites.tcs.com/artificial-intelligence/

TATA CONSULTANCY SERVICES

About The Author

Vikas Gopal

Vikas Gopal is the Global Managing Partner, Finance & Shared Services Transformation within Tata Consultancy Services. He has extensive experience advising senior executives on industry trends and strategies for shared services, finance, and digital transformation. Vikas has held leadership roles in consulting and has led the strategy, design, and implementation of several transformative programs.

Contact

Visit Consulting & Systems Integration page on www.tcs.com

Email: global.consulting@tcs.com

Blog: #Enterprise Insights

Subscribe to TCS White Papers

TCS.com RSS: http://www.tcs.com/rss_feeds/Pages/feed.aspx?f=w
Feedburner: http://feeds2.feedburner.com/tcswhitepapers

About Tata Consultancy Services Ltd (TCS)

Tata Consultancy Services is an IT services, consulting and business solutions organization that delivers real results to global business, ensuring a level of certainty no other firm can match. TCS offers a consulting-led, integrated portfolio of IT and IT-enabled, infrastructure, engineering and assurance services. This is delivered through its unique Global Network Delivery Model™, recognized as the benchmark of excellence in software development. A part of the Tata Group, India's largest industrial conglomerate, TCS has a global footprint and is listed on the National Stock Exchange and Bombay Stock Exchange in India.

For more information, visit us at www.tcs.com

Experience certainty. IT Services
Business Solutions
Consulting

TCS Design Services I M I 01 I 18