

Defining future business operations

HfS Industry Blueprint Banking and Financial Services (BFS) Operations 2018 Excerpt for Infosys

April 2018 | Authors:

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What you'll read

Торіс	Page
Introduction and Definitions	3
Executive Summary	9
State of the Banking and Financial Services Industry	12
Research Methodology	27
Service Provider Analysis	30
Market Direction and Recommendations	38
About HfS	44



Introduction

- » We are 10 years on from the global financial crisis and Banking and Financial Services (BFS) firms across the globe are still struggling to drive growth and profit.
- » BFS firms are ripe for digital transformation and there are numerous change agents that offer massive promise for reinvention and disruption.
- » The *HfS Industry Blueprint: Banking and Financial Services (BFS) Operations 2018* examines the state of the BFS industry and investigates the service provider landscape in terms of how they are supporting and enabling the digital transformation of BFS firms.
- » We analyzed the capabilities of 26 service providers across the banking and capital markets value chain, to develop a comprehensive analysis of industry-specific services and solutions for BFS enterprises.
- » The report quantifies the health of the BFS sector, examines BFS buyer objectives for digital transformation, provides emerging use cases for key change agents, reviews provider developments, and makes recommendations for buyers and providers of BFS-focused services.
- > Unlike other quadrants and matrices, the HfS Blueprint measures relevant differentials between service providers across various facets of innovation and execution.



The banking and financial services operations value chain

HfS developed the industry value chain concept to graphically depict our understanding of the processes and functions that specific industries engage in to operate their businesses. The industry value chain for BFS operations provides a comprehensive overview of services for the BFS industry. In-scope services for this study are identified below.

		Bar	nking			Capital Markets		
	Retail Banking	Cards	Mortgage and Lending	Commercial Banking	Front Office	Middle Office	Back Office	
Industry Specific	 » Acquisition » Onboarding » Account servicing » Transaction processing » Core banking 	 » Customer acquisition » Onboarding » Account servicing » Transaction processing 	 » Sales and marketing » Origination » Servicing » Default management » Secondary market operations 	 » Acquisition and onboarding » Account management » Trade finance » Lending » Treasury services » Core banking 	 » Research » Sales support » Market data 	 » Trade services » Reference data manage- ment 	 » Clearing and settlement » Post- settlement processing » Reconciliation » Treasury services 	Primary tocus of this report
			Cross-F	unctional BFS Pr	ocesses			or T
	Bills and statements I Risk management and monitoring I Regulatory compliance I Reporting							
Ital	Horizontal Business Processes							
zon	Customer engagement I Human resources I Procurement I Finance and accounting I Payroll							
Horizontal	Horizontal IT Processes							
	Planning, design, and implementation I Application development and maintenance I Infrastructure management							
				abling Technolog				
		RPA I Artificial i	ntelligence I Smart a	nalytics I Blockchain	I IoT I Cloud I Mobi	lity I Social media		



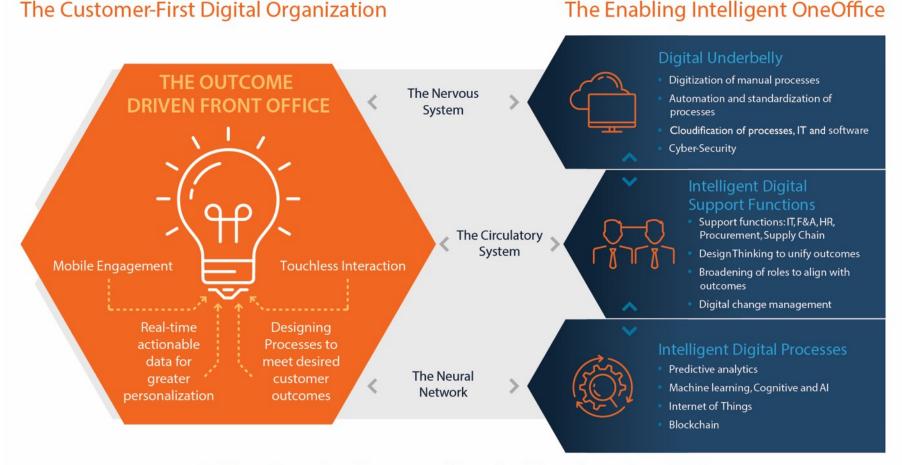
The banking and financial services operations value chain – defined

- > The industry value chain for BFS operations provides a comprehensive overview of services for the BFS industry with sub-sector coverage falling into two primary buckets:
 - **Banking** Retail banking, mortgage and lending, commercial banking, and card services;
 - **Capital markets** Investment banking, brokerage services, asset management, and wealth management.
- Industry-specific processes: These are categorized under banking or capital markets and include specific value chain functions such as retail banking and card services for banking or front office for capital markets. These functions represent the range of unique processes undertaken by BFS firms to conduct their core business. As BFS firms also have various functions that are industry-specific yet tend to run across all BFS businesses, such as regulatory compliance, we have called out these functions as cross-functional BFS processes.
- » Horizontal IT and business processes: Enterprises in all sectors have a range of consistent business and IT processes that are essential to running their businesses but are executed similarly regardless of industry. We refer to these as horizontal processes and have segmented them by IT and business functions. Our industry-specific coverage of these areas will focus on instances where something unique has been developed for the industry, such as cloud-based core banking applications, or virtual bankers.
- > Enabling technologies: So much of the innovation and change taking place in BFS is driven by enabling technologies. They include elements such as RPA and AI, blockchain, and smart analytics. Our research on these topics will focus on how they are being utilized within BFS, which service providers are bringing them to the table, and what real business impact is being realized.



The Digital OneOffice Framework is the end-state vision for transformation

The HfS OneOffice conceptual framework is the ultimate end-state for digital transformation in BFS. The eight ideals of the As-a-Service Economy offer a practical roadmap to the OneOffice that unites operations and IT transformation.



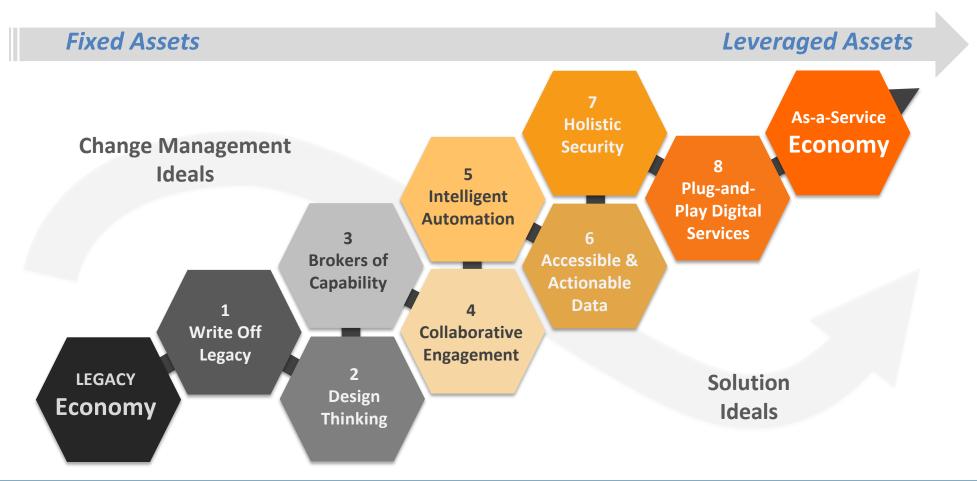
Source: HfS Research, 2018 Collapsing the front and back office into OneOffice

Proprietary | Page 6



There are eight As-a-Service ideals to enable the journey to the OneOffice

- » Realizing the OneOffice vision means changing the nature and focus of engagement among enterprise buyers, service providers, and advisors to be more agile, collaborative, and focused on shared outcomes.
- » "As-a-service" unleashes people talent to drive new value through smarter combinations of talent and technology focused on business results beyond cost reduction.





A convergence of BFS technology and operations transformation initiatives

These are coming together via the As-a-Service economy framework to deliver true digital transformation



Proprietary | Page 8



Executive Summary



Executive summary – Banking and Financial Services (BFS) Operations 2018 (1)

- The HfS Health Rating for the BFS industry shows the sector as lagging, based on growth metrics in the low single digits. The rating takes into account revenue and profit data, M&A growth for BFS overall and for fintechs, VC funding growth in fintechs, IPO growth over the past three years, and bankruptcy trends.
- » BFS firms are clear that the number one reason for transformation is to grow their topline revenue. Given the anemic Health Rating for the BFS sector, this clarity of vision is refreshing. The challenge now is to define how the transformation will take place and which levers will be utilized to achieve the growth.
- » **Don't believe the hype.** Despite BFS being a leader in innovation adoption, HfS data shows that the majority of hyped change agents are still in planning or pilot stages.
- The HfS market size and forecast for IT and business process services for BFS sits at \$214B in 2017. This is forecast to grow at 4.5% through 2022, achieving a size of \$267B. Business process services are a critical growth engine for this, growing at a rate faster (5.3%) than the overall segment
- » IT and BPO deal convergence. Many business process deals are starting to include elements of IT such as intelligent automation, smart analytics, and other digital change agents. Many IT deals are starting to require business process expertise in order to automate manual functions and build effective internal and external user experiences. We identify these as combined deals when we can, but increasingly deals identified as IT or business process will include elements of the other.
- The HfS OneOffice framework is the ultimate end-state for digital transformation in BFS enterprises. The eight ideals of the As-a-Service Economy offer a practical roadmap to the OneOffice that unites operations and IT transformation.



Executive summary – Banking and Financial Services (BFS) Operations 2018 (2)

- » Leading players of BFS-focused IT and business process services have a continued track record of investment in new technologies such as elements of AI, automation, and blockchain; establishment of onshore development and innovation centers to enable customer co-innovation; acquisitions to fuel digital design and consulting capabilities; and innovation partnerships with fintechs and other ecosystem partners.
- We assessed 26 players that provide IT and business process services to BFS firms across multiple dimensions of execution and innovation. The HfS Winner's Circle for Banking and Financial Services Providers includes: TCS, HCL, Infosys, Accenture, Genpact, IBM, Wipro, Cognizant, and Tech Mahindra.
- Providers have a strong concentration of mature capabilities across the BFS value chain. Cross-functional BFS services such as risk management and compliance were offered by most providers, with the greatest depth of mature offerings in compliance services. Banking had the next greatest depth of providers with mature offerings, with services for retail banking as the most mature segment; capital markets has less concentration of mature offerings, with back office services having the greatest depth of capability. For horizontal business services, F&A ranked as the most mature offering.
- Through 2022, BFS firms and their service partners will pivot from targeted technology-specific digital transformation initiatives to broader, end-to-end initiatives. The outcomes, too, will shift from bottom line impact to topline impact as the industry overall gains confidence with emerging technologies and methods used in ever-increasing combinations.
- » The service providers that thrive in the wildly competitive BFS market will be those that excel at helping their BFS clients achieve their business transformation objectives.



State of the Banking and Financial Services Industry

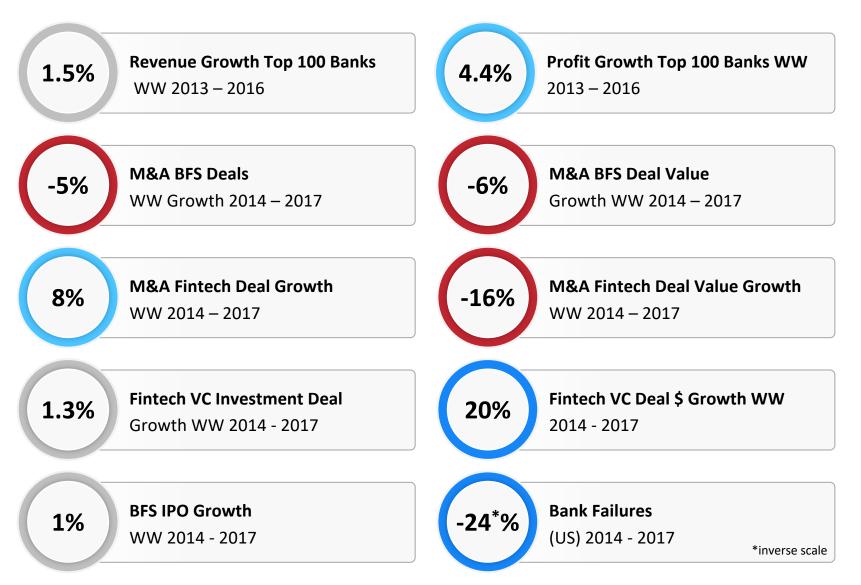


The HfS banking and financial services health rating methodology

- The banking industry has recovered from the global financial crisis, right? HfS Research indicates that this recovery is tepid at best. Banks around the globe continue to struggle with revenue and profitability growth as they strive to repair consumer confidence and assimilate regulatory safeguards, all while embracing digital transformation and grappling with the hordes of new competitors hellbent on disrupting traditional banking operations.
- In order to cut through the hype around the state of the banking industry, HfS has developed its Health Rating approach a methodology that draws on multiple measures of growth and industry fortitude to assess an industry's overall well-being. Measures include:
 - Three years of **revenue and profit data** for the **top 100** publicly traded banks worldwide
 - **M&A growth** for BFS overall and for fintechs over the last three years to gauge climate and focus
 - VC funding growth in fintechs as a proxy to measure new entrants (a.k.a. potential disruptors) into the market
 - **IPO growth** over the past three years to understand expansion potential for the BFS sector
 - **Bankruptcy trends** for the past three years in order to understand any continued trouble areas.
- » These elements are quantified and rolled up to provide an overall industry health rating.
- » Data sources include: Public financial filings; Institute for Mergers, Acquisitions and Alliances M&A statistics; KPMG and Pitchbook fintech data; EY IPO data; and FDIC failed bank database.



Lagging growth metrics for global BFS industry



Banking & financial services industry health rating

 2.2

 Lagging

 declining
 lagging

 satisfactory
 healthy

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 5-9
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HfS Health Rating Methodology draws on multiple measures of growth and industry fortitude to assess an industry's overall wellbeing. Measures include three years of data on:

- 1) Revenue and profit for the top 100 publicly traded banks worldwide
- 2) M&A growth for BFS overall and for fintechs to gauge climate and focus
- 3) VC funding growth in fintechs as a proxy to measure new entrants (potential disruptors) into the market
- 4) IPO growth to understand expansion potential for the BFS sector
- **5) Bankruptcy trends** in order to understand any continued trouble areas.

These five elements are quantified and aggregated to provide an overall industry health rating.

Source: Public financial filings, Institute for Mergers, Acquisitions and Alliances M&A statistics, KPMG and Pitchbook fintech data, EY IPO data, and FDIC failed bank database.



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BFS Health Rating analysis (1)

- » BFS revenue and profit growth Lagging growth: Between 2013 and 2016, aggregate revenues at the top 100 global banks grew only 1.5%, and even firms in emerging markets were not immune to slow growth. Profit growth was slightly higher, with an aggregate performance of 4.4% growth over three years.
- » Banking M&A activity Declining growth: With 782 announced deals in 2017, global banking M&A volume has been dropping since 2014. Deal size has been more variable, but it also shows a net drop in the period. Many deals are focused on mergers to help improve financial strength and expand footprint. There is also focus on divestiture activity to streamline focus.
 - Notable banking M&A deals in 2017: Sterling's acquisition of Astoria Financial Corporation; First Horizon National Corporation's acquisition of Capital Bank Financial Corp; Barclay's disposal of certain AP-based wealth management businesses; UBS' sales of its Dutch wealth management business.
- Fintech M&A activity Mixed bag growth: Deal volumes are growing but deal size is declining. Fintech M&A continues to be very strong. 2015 was a banner year for fintech M&A, with 2016 looking anemic by comparison. Volumes once again increased in 2017. Financial institutions have only been minor contributors to fintech M&A thus far, opting instead to partner, invest, develop in-house competencies, or obtain capabilities from service partners. The pace of fintechs being purchased by banks started to increase in 2017 and we expect it to continue.
 - Notable fintech acquisitions by banks in 2017: BNP Paribas acquired Compte Nickel, an online bank, and a majority stake in Gambit, a robo-advisor; JPMorgan Chase acquired MCX and WePay, both payment providers; Credit Suisse acquired a majority stake in automated lender Tradeplus24.



declining	lagging	satisfactory	healthy	hyper
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BFS Health Rating analysis (2)

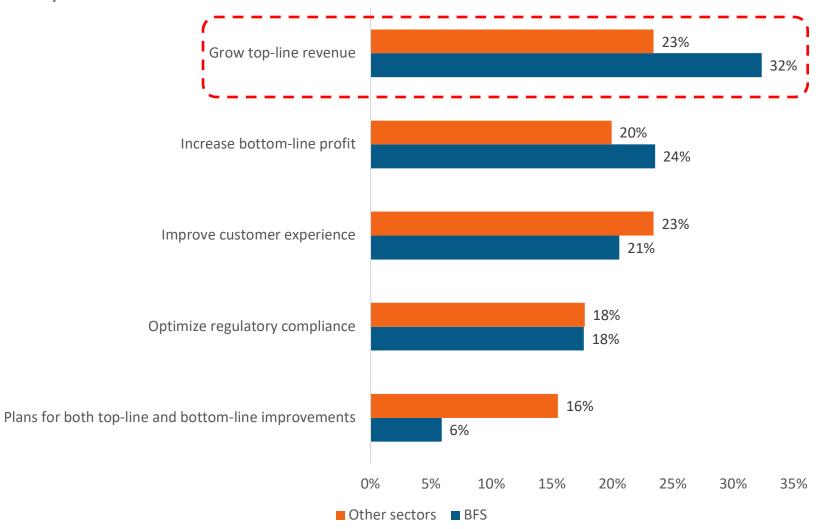
- Growth in VC funding for fintechs Mixed bag growth: The past three years of fintech VC deals have shown a massive peak in 2015, followed by a steady decline in deal numbers. Overall volumes have stayed high at 1000+ annually. While deal values in 2017 did not approach the record setting \$4.5B to China-based Ant Financial, there have continued to be notable deals especially in lending and payments. Blockchain deals are also on the rise with 92 deals worth \$512M in 2017.
 - Notable fintech VC deals in 2017: Digital mortgage company Blend raised \$100M and added Wells Fargo and US Bank as partners; Kabbage, a relatively well-established online lending provider, raised \$250M; WeLab, an online lending provider, raised \$220M; Transferwise, an international payment provider, raised \$280M.
- » BFS IPO growth Lagging growth: While overall BFS IPOs grew in 2017 (from 80 to 90), with modest growth from 2014 to 2017, the overall capital raised has been declining. The US and EMEA led in number of IPOs in 2017. By comparison, the BFS sector has had modest IPO activity compared to sectors such as industrials, technology, and consumer products.
- » Bank failures Healthy decline: We measure bankruptcy growth on an inverse scale in our Health Rating analysis. Thankfully, the rate of US bank failures continues to decline. There were only 8 failures in 2017, and a total of 21 from 2015 to 2017. This compares favorably to a total of 389 failures from 2009 to 2011.



declining	lagging	satisfactory	healthy	hyper
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The leading transformation objective for BFS is topline revenue growth

What are your top objectives for business operations transformation over the next three years?



Why transform?

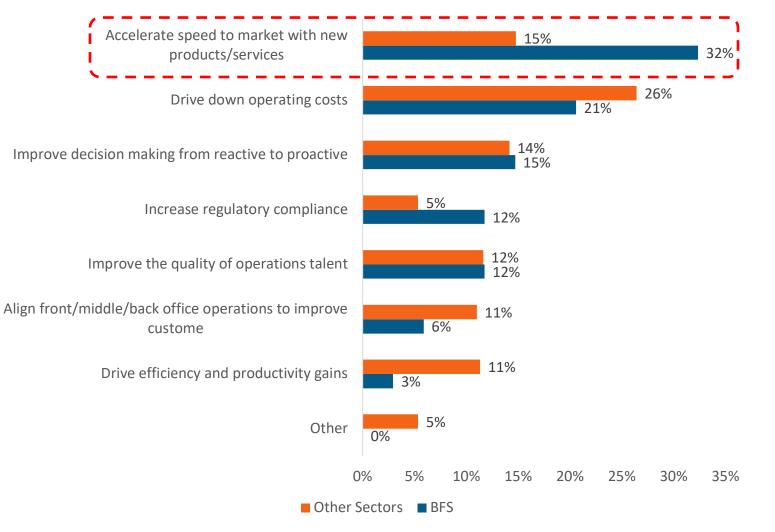
- » BFS enterprises are clear that the number one reason for transformation is to grow their topline revenue.
- » Other sectors are torn between revenue growth and improving customer experience.
- Siven the anemic Health Rating for the BFS sector, this clarity of vision is refreshing. The challenge now is to define how the transformation will take place and which levers will be utilized to achieve the growth.

Source: HfS Digital Transformation by Industry 2018; BFS n= 34; Other sectors n= 318; Other sectors include Manufacturing, Energy, Utilities, Healthcare, Pharma, Retail/CPG, High-Tech, Insurance, Telecommunications, and Travel



BFS firms want to use transformation to bring new offerings to market

Which business outcome is the most critical to achieving your operations transformation objectives?



What will be achieved with transformation?

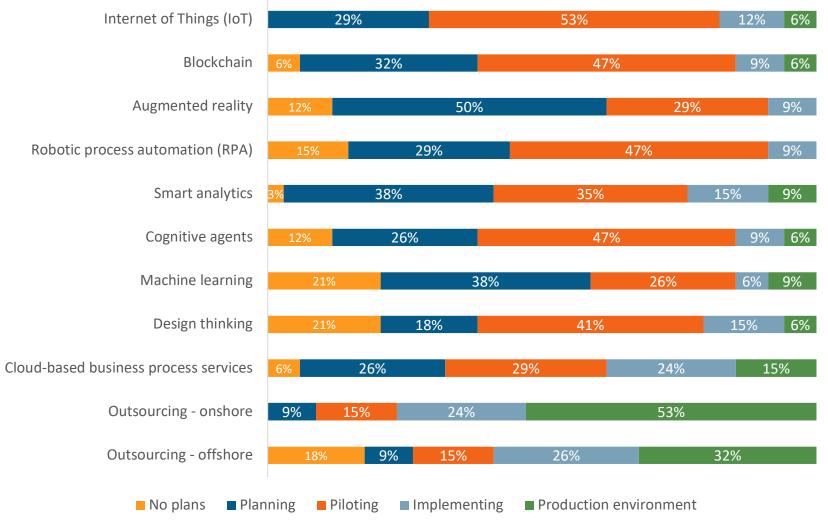
- When asked what they would focus on to achieve their desired business transformation objectives, BFS firms cited accelerating speed to market with new products or services as their critical outcome.
- This demonstrates consistent vision from the big picture transformation objective "grow topline revenue" to what will be achieved "bringing new offerings to market".
- All other sectors cite driving down operating costs as the critical outcome for achieving transformation objectives. They will be hard pressed to achieve either improved customer experience or topline revenue growth through this approach.

'S Research

Source: HfS Digital Transformation by Industry 2018; BFS n= 34; Other sectors n= 318; Other sectors include Manufacturing, Energy, Utilities, Healthcare, Pharma, Retail/CPG, High-Tech, Insurance, Telecommunications, and Travel

BFS firms are still in pilot stage with many change agents

Please characterize your organization's current use of the following value creation levers to achieve the business outcomes described in the previous question?



How will you achieve transformation?

- Don't believe the hype. Despite BFS being a leader in innovation adoption, HfS data shows that the majority of hyped change agents are still in planning or pilot stages.
- » IoT, blockchain, augmented reality, RPA, smart analytics, and cognitive agents are the leading focus areas for planning and pilots.
- Design thinking, smart analytics, and cloud-based business processes rate as the leading areas under implementation and in production outside of proven approaches such as outsourcing.
- Cloud initiatives are progressing as banks continue to gain comfort with as-a-servicebased business models outside of their core run the business systems.
- Augmented-reality use cases such as visualized account data and virtual branches are driving planning efforts.

Source: HfS Digital Transformation by Industry 2018; BFS n= 34



BFS change agent spotlight – robotic process automation (RPA)

- » RPA software is a programmable tool that allows businesses to tailor complex automations to reduce the human labor required in many repetitive, complex, ruled-based actions and processes. When an RPA robot is at work, it performs tasks just like a human would: logging in, operating applications, entering data, performing complex calculations, and logging out. RPA excels at performing high-volume rule-based transactional tasks, including record maintenance, queries, calculations, and transactions. Programmable automation means that RPA can be configured to perform almost any rule-based task.
- » RPA use cases have proliferated in BFS enterprises: BFS respondents to a recent <u>HfS study on intelligent automation use</u> cited F&A as their top process focus for RPA, with most RPA initiatives focused on internal processes rather than customer-facing ones. This is in contrast to the other industries such as insurance and telecommunications which ranked customer service as their top area of focus for RPA. RPA use cases are finding their way into production environments, albeit often at the sub-process level:
 - **Recovery of low dollar disputed amounts**: Bots enable the recovery of low dollar disputed amounts from credit card companies' websites for a regional US-based diversified financial services firm.
 - Foreclosure document process: Automation of judgment process, manual capturing, and recording and reconciliation of debt amounts from client apps into attorney-specified spreadsheets to facilitate filing of affidavits.
 - Streamline, standardize and automate know your customer (KYC) customer due diligence: Through using robotics for data sourcing, data aggregation, and migration for a global bank.
 - Automate invoice processing for internal purchasing system and increase compliance auditability for a global bank; reallocation of resources to focus on approvals and value-added tasks.



BFS change agent spotlight – artificial intelligence (AI)

- Artificial intelligence (AI) refers to the simulation of human-thought processes across enterprise operations, where the system makes autonomous decisions using high-level policies, constantly monitors and optimizes its performance, and automatically adapts itself to changing conditions and evolving business rules and dynamics. It involves self-learning systems that use data mining, pattern recognition, and natural-language processing to mimic the way the human brain works without continuous manual intervention.
- » It is critical to understand that **AI is not one technology**. It is a set of technologies and building blocks that include natural language processing (NLP), machine and deep learning, neural networks, virtual agents, autonomics, and computer vision.
- » A recent <u>HfS report examined emerging use cases for AI in banking and financial services</u>, and includes:
 - Virtual assistant integrated with Hadoop cluster: Big 4 for global bank, integration of Hadoop cluster to feed into every customer channel; included sentiment analysis and real-time analysis. Example for scale and service orchestration; goes beyond chatbot hype.
 - Exploring quantum computing techniques on AI and machine learning algorithms in blockchain applications: Global SI for leading bank in Australia. Example for integrated approach of next-gen technologies and approaches.
 - Setup of joint AI CoE with Intel and support of Intel Nervana AI Academy: TCS provides a platform to connect researchers, developers, data scientists, and startups. These solutions will be optimized for the Intel portfolio of technologies and is an example for ecosystem enablement.

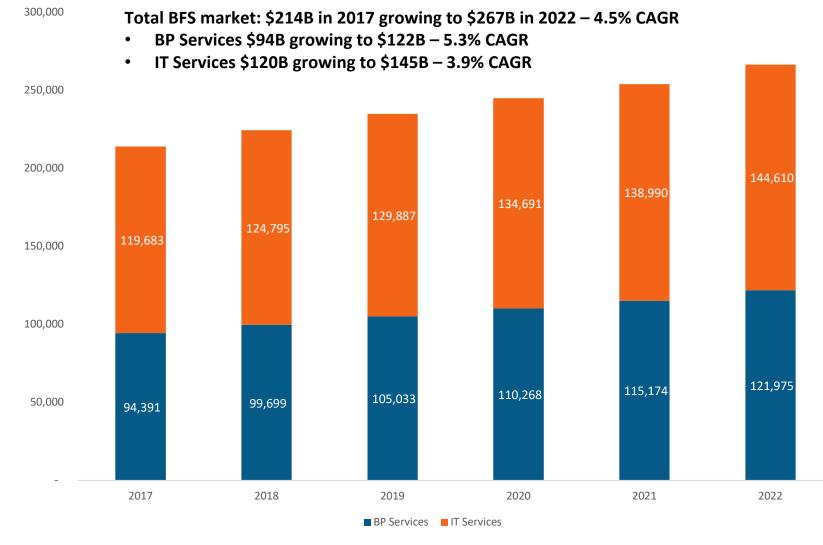


BFS change agent spotlight – blockchain

- » Blockchain is a distributed ledger used to maintain a continuously growing list of records, called blocks. Each block contains a timestamp and a link to a previous block. By definition, blockchains are inherently resistant to modification of the data. Once recorded, the data in any given block cannot be altered retroactively without the alteration of all subsequent blocks and a collusion of the network majority.
- The market is witnessing an explosion in blockchain PoCs and pilots, but in-production solutions are few and far between. Our analysis suggests that 90% to 95% of the enterprise blockchain initiatives are at the strategy formulation, PoC, or pilot stage. Only 5% to 10% of successful pilots progress to production. Almost all live in-production engagements are parallel or shadow environments where legacy environments have not been completely replaced. As blockchain solutions become production ready, there is a strong market for system integration across blockchains and existing legacy and ERP technology.
- » Banking and financial services lead blockchain adoption; however, credible use cases across almost all industries are emerging. BFS blockchain use cases in pilot or in live production include: payments/settlements, trade finance, wallets, trading, asset management, and compliance.
- The current revenues from enterprise blockchain services are relatively small (US \$500M to \$600M), largely driven by strategic advisory and prototype building. We expect to see a proliferation in enterprise blockchain services with anticipated YoY growth in excess of 100% over the next 12 to 24 months.
- » For more on enterprise blockchain services and development, please read: <u>HfS Blueprint Enterprise Blockchain Services</u>.



Global banking and financial services IT and business process services market forecast



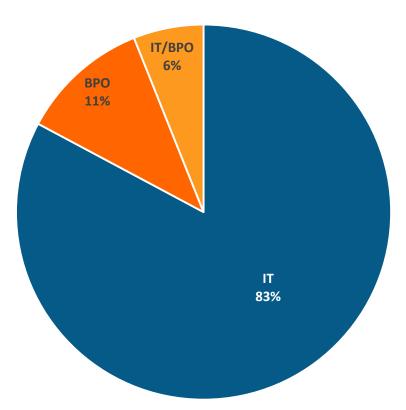
Growth fueled by BP services

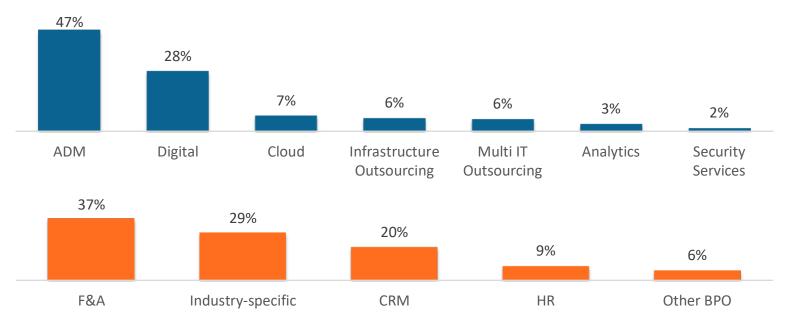
- The HfS market size and forecast for IT and business process services for BFS sits at **\$214B in 2017**.
- This is forecast to grow at 4.5% through 2022, achieving a size of \$267B.
- The BFS business process (BP) **>>** services market is slightly smaller than IT services, but growing faster (5.3% CAGR 2017-2022).
- BP services include CRM, F&A, HR and industry-specific.
- IT services include consulting and deployment and implementation, applications development and management (ADM), infrastructure management, and other IT services.

Source: HfS Research 2018



BFS Outsourcing publicly announced contract analysis, 2016 and 2017 (1)

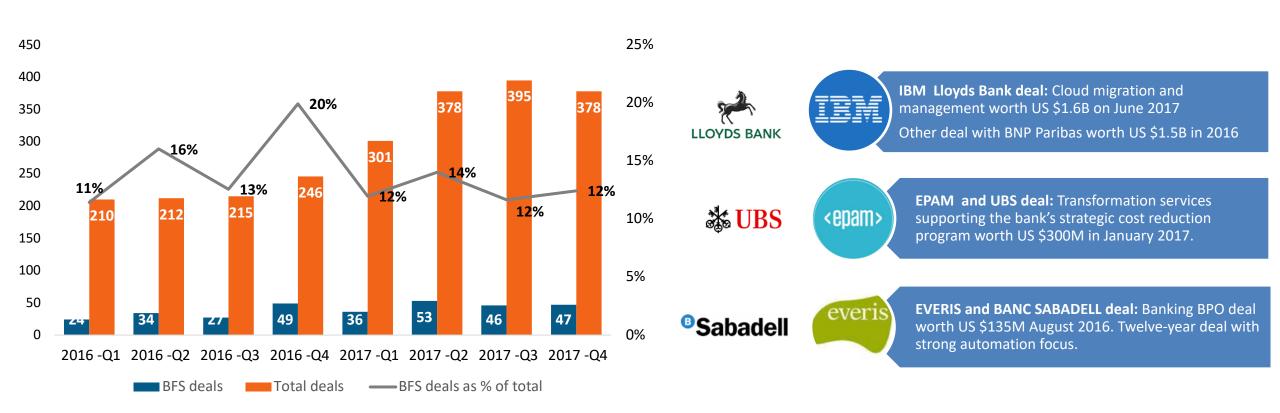




Source: HfS Research 2018



BFS Outsourcing publicly announced contract analysis, 2016 and 2017 (2)



BFS deals vs. total deals

Top three BFS deals



BFS outsourcing contract analysis – digital grows, IT and BPS integrate

- » HfS maintains a contract database for all publicly announced services contracts.
- » We mined our database for BFS contracts in 2016 and 2017 to review trends and volumes.
- > Volume: BFS deals represented ~14% of all contracts, reflecting this sector's continued role as the largest outsourcing market.
- Deal type: The vast majority of BFS deals were for IT outsourcing (83%), which includes application development and maintenance (ADM), digital, cloud, infrastructure, analytics, security services, and multi-IT deals. This reflects BFS' continued focus on legacy modernization and digital transformation. Note the emergence of "digital" as its own category. These deal are often high-visibility thus are announced as part of strategic imperatives for financial institutions. Loads of more modest, but still transformative business process deals are also being done, but are often not announced.
- » IT and BPO deal convergence: Many business process deals are starting to include elements of IT such as intelligent automation, smart analytics, and other digital change agents. Many IT deals are starting to require business process expertise in order to automate manual functions and build effective internal and external user experiences. We identify these as combined deal when we can, but increasingly deals identified as IT or business process will include elements of the other.
- > Top BFS deals: The three deals spotlighted are some of the largest for BFS from 2016 and 2017. These are all multi-year transformation engagements relying heavily on both IT and business processes and cutting edge talent to help drive innovation, manage costs, and ultimately improve revenue and profit.



Research Methodology



Research Methodology

» Data summary

Data was collected via RFIs with service providers, BFS buyer reference checks, briefings with leaders of BFS industry practices within service providers, a survey of BFS buyers in the Global 2000, and publicly available information sources from Q1 2018. Sources include: buyers, providers, and advisors or influencers of BFS IT and business process services.

» Short-listed service providers



This report is based on:

- Tales from the trenches: Interviews with buyers who have evaluated service providers and experienced their services. Some contacts were provided by service providers, and others were interviews conducted with participants in global market research studies.
- Sell-side executive briefings: Structured discussions with service providers regarding their vision, strategy, capability, and examples of innovation and execution.
- Publicly available information: Thought leadership, investor analyst materials, website information, presentations given by senior executives, industry events, etc.



HfS Blueprint scoring: Banking and Financial Services

Execution	100%	Innovation	100%
Service delivery	15%	Partnership ecosystem for best of breed capabilities	15%
» Best practices		» Depth and breadth of partners	
» Continuous improvement		» Output of partnerships	
» Footprint			
Industry expertise	25%	Deployment of intelligent automation	15%
» Depth of industry knowledge		» Development and use of proprietary tools	
» Direct sector experience		» Development of skills with best-of-breed partner tools	
		» Engagements with IA	
Relationship management	15%	Flexibility in pricing models	10%
» Formal relationship and governance structure		» Evolution of commercial models	
» Client-centricity		» Outcome-based approaches	
» Single face to the customer			
Attracting and retaining talent	15%	Clear vision for future of your industry	20%
» Culture		» Deep knowledge of industry	
» Development opportunities		» Focused approach for meeting industry needs	
» Reskilling		» Articulation of clear value proposition	
» Attrition			
Breadth of industry offerings across value chain	15%	Models for co-innovation and collaboration	10%
		» Co-development with clients	
Overall execution	15%	Growth and refinement of industry-specific offerings	10%
		Overall innovation	20%

20%

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Service Provider Analysis



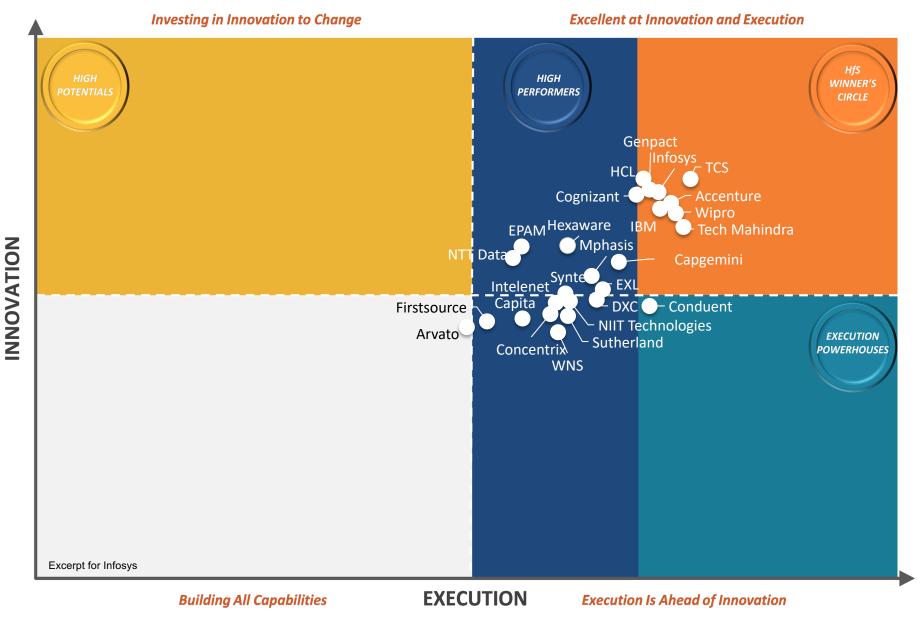
Guide to HfS Blueprint Grid

To distinguish service providers that show competitive differentiation across innovation and execution, HfS awards these providers the "HfS Winner's Circle" designation.

	Category	Execution	Innovation
•	<i>HfS Winner's Circle</i> show excellence recognized by clients in the Eight Ideals in execution and innovation	Collaborative relationships with clients, services executed with a combination of talent and technology as appropriate, and flexible arrangements.	Articulate vision and a "new way of thinking," have recognizable investments in future capabilities, strong client feedback, and are driving new insights and models.
•	<i>High Performers</i> demonstrate strong capabilities but lack an innovative vision or momentum in execution of the vision	Execute some of the following areas with excellence: worthwhile relationships with clients, services executed with "green lights," and flexibility when meeting clients' needs.	Typically, describe a vision and plans to invest in future capabilities and partnerships for As-a-Service, and illustrate an ability to leverage digital technologies or develop new insights with clients.
•	<i>High Potentials</i> demonstrate vision and strategy but have yet to gain momentum in execution of it	Early results and proof points from examples in new service areas or innovative service models, but lack scale, broad impact, and momentum in the capability under review.	Well-plotted strategy and thought leadership, showcased use of newer technologies or roadmap, and talent development plans.
•	<i>Execution Powerhouses</i> demonstrate solid, reliable execution but have yet to show significant innovation or vision	Evidence of operational excellence; however, still more of a directive engagement between a service provider and its clients.	Less evident vision and investment in future-oriented capability, such as skills development, "intelligent operations," or digital technologies.



HfS Blueprint Grid: Excellence in Banking and Financial Services 2018



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Proprietary | Page 32

Banking and Financial Services grid results summary

- » We assessed 26 IT and business process service providers across multiple dimensions of service execution and innovation for banking and financial Services.
- HfS Winner's Circle represents service providers that excel at both execution and innovation. The HfS Winner's Circle for banking and financial services includes:
 - TCS

Accenture

Wipro

- HCL
- Infosys

Genpact

- IBM

- Cognizant
- Tech Mahindra.
- The High Performers all execute well and are investing in future capabilities, but need to gain more consistency, traction and scale with clients to maximize impact. The BFS High Performers are:
 - Capgemini - DXC Sutherland Hexaware NTT Data – Concentrix – Mphasis Syntel – WNS - EXL NIIT Technologies – Capita
 - EPAM

Intelenet

- Firstsource.
- Our **Execution Powerhouse** is Conduent, focused on delivery strength while building innovation credentials. **>>**



Innovation and execution highlights from the 2018 BFS Grid

Execution highlights

- Service delivery. BFS Stalwarts such as Accenture and IBM earned kudos for footprint, constant reinvention, and best practices. Sutherland, NIIT Technologies, and Tech Mahindra earned praise for focus on continuous improvement.
- Industry expertise. TCS, NTT DATA, and DXC were commended for strong sector expertise.
- » Relationship management. Providers such as HCL, WNS, and Intelenet exhibited leading relationship management practices.
- Attracting and retaining talent. Genpact, Infosys, and Tech Mahindra were noted for their talent reskilling programs.
- » Breadth of industry offerings. BFS is a multi-faceted sector. Providers with comprehensive coverage include HCL, Wipro, and Tech Mahindra.
- » Overall execution. TCS, Sutherland, and NIIT Technologies rose to the top for overall execution.

» Partnership ecosystem. Accenture, IBM, and Wipro were recognized for effective best-of-breed relationships across the broad BFS ecosystem.

Innovation highlights

- Deployment of intelligent automation. Providers such as TCS,
 Wipro, and IBM were recognized for their intellectual property.
- Flexibility in pricing models. NIIT Technologies, Syntel, and EXL rated well for the evolution of commercial models towards business outcomes
- » Vision for future of industry. How HCL and TCS articulate their vision for the future of BFS resonates with buyers.
- » Co-innovation with customers. Infosys, TCS, and Intelenet were recognized for collaboration efforts with clients.
- » Growth of industry-specific offerings. Cognizant, Infosys, and IBM lead the pack for innovating new offerings.
- » Overall innovation. Providers with strong intelligent automation offerings such as TCS, HCL, Wipro, Genpact, and Cognizant lead for overall innovation.





BFS service capabilities across the value chain – industry-specific

		Ва	nking			Capital market	S	Cross-functional	BFS processes
		Card	Mortgage and	Commercial				Risk management	Regulatory
	Retail banking		lending		Front office	Middle office		-	compliance
Infosys									

Not a focus Emerging Mature	Not a focus	Emerging	Mature
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Providers' BFS industry-specific capabilities

- We asked buyers of BFS to identify the top strengths of service providers across the BFS value chain.
- » We then asked providers to rate their BFS offerings on a maturity scale.
- The heatmap provides a combined view of buyer experience with providers and provider-identified capabilities.
- » Cross-functional BFS such as risk management and compliance were offered by most providers, with the greatest depth of mature offerings in compliance services.
- » Banking had the next greatest depth of providers with mature offerings, with services for retail banking as the most mature segment.
- Capital markets has less concentration of mature offerings, with back office services having the greatest depth of capability.

Source: Buyers n= 34; Providers n= 26





BFS service capabilities across the value chain – horizontal business services

		Horizonta	l business servic	es for BFS	
	Customer engagement	Human resources	Procurement	Finance and accounting	Payroll
Infosys					

Not a focus Emerging Mature	Not a focus	Emerging	Mature
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Providers' horizontal BFS capabilities

- » We asked buyers of BFS to identify the top strengths of service providers across the BFS value chain.
- » We then asked providers to rate their BFS offerings on a maturity scale.
- The heatmap provides a combined view of buyer experience with providers and provider-identified capabilities.
- » Most providers of horizontal business services to the BFS sector offer finance and accountings services. F&A is ranked as the most mature horizontal offering.
- » Customer engagement had the next greatest depth of providers with mature offerings.
- >> Human resources, procurement, and payroll services proved to be more specialized with a greater number of providers with no focus in these areas or emerging focus.
- Many of the providers with less capabilities across horizontal business services hail from a heritage of IT services rather than a business process focus.

Source: Buyers n= 34; Providers n= 26



Recent provider developments in support of the BFS sector 2017 to Q1 2018

Provider	Notable developments in support of the banking and financial services sector				
Infosys°	Continued investment in several onshore technology, design, and innovation hubs in the US; development of joint solutions with fintechs such as Moneythor for personalized recommendations and insights and Niki.ai, a chat-based virtual assistant enabling banks to offer its customers a virtual banking assistant for shopping; new externally sourced CEO; launch of Finacle Trade Connect, a blockchain based trade finance solution for banks; acquisition of Brilliant Basics, a product design and customer experience company with BFS depth.				



Market Direction and Recommendations



What does the future hold for BFS buyers and providers? (1)

- > Through 2022, BFS firms and their service partners will pivot from targeted technology-led digital transformation initiatives to broader, end-to-end initiatives. The outcomes, too, will shift from bottom-line impact to topline impact as the industry overall gains confidence with emerging technologies and methods used in ever-increasing combinations.
- > The service providers that thrive in the wildly competitive BFS market will be those that excel at helping their BFS clients achieve their business transformation objectives. Given BFS budgetary constraints, creative engagement models will be essential to driving business transformation forward.
- » BFS firms will concentrate their efforts on digital payments and lending, modernizing the user experience for wealth management, digitizing core banking systems through a heady mix of cloud/DevOps/Agile and creative use of APIs, and leveraging intelligent automation to make significate strides in compliance management.
- » Blockchain will continue to gain significant traction in BFS. HfS expects a five to seven year horizon for blockchain to fully deliver given the nascent state of the technology and related adoption. In the meantime, we expect blockchain initiatives to drive growing efficiency and enable reimagined transaction management.
- » Fintechs will increasingly become enablers rather than disruptors. We'll see an increase in fintech M&A by BFS firms as well as an increase in partnerships, investments, and integration in service provider partner ecosystems.
- » Co-innovation between BFS firms and service provider partners in regional onshore innovation centers will continue to grow as BFS firms demand both speed and business results from a vast mix of technologies, processes, and skills.



What does the future hold for BFS buyers and providers? (2)

- » Increasingly, the value of service providers will be viewed in terms of their ability to offer service orchestration. This requires providers to have a mastery of emerging change agent technologies and methods individually, and then have the expertise to leverage them in various permutations to deliver desired benefits.
- > Humans will not be eradicated by automation. Rote, manual functions will increasingly be automated. With this will come a required upskilling of people to manage bot resources, manage exceptions, refine and reinvent processes and focus on high-value work. Process knowledge, creativity, non-binary thinking, and emotion are what make us human and will be come increasingly valuable assets in the digital economy.
- >> Europe-led compliance requirements General Data Protection Regulation (GDRP) and PSD2 (the Revised Payment Service Directive) will both serve as major change agents for overall data privacy, the future of payments and development of data-based services. Despite being centered in Europe, these are global concerns.
- The HfS OneOffice framework is the ultimate end state for digital transformation in BFS. The eight ideals of the As-A-Service Economy offer a practical roadmap to the OneOffice that unites operations and IT transformation.



Recommendations for buyers of BFS

- » **Don't forget the Why, What, and How of digital transformation.** Why are you transforming? What are you going to achieve? How are you going to do it? This must be clear at all times at every level of the organization.
- » It's not about technology for technology sake. An exciting Center of Excellence focused on AI yields nothing if you do not have a clear plan for what you want to achieve. We heartily encourage all firms to develop an evolved understanding of the business outcome potential of emerging change agents. However technology does not matter if there is no plan.
- Speed and impact are your best friends. Your ability to change effectively and quickly and deliver exponential, not incremental, growth, is what will define the new BFS leaders. Ensure you understand the business outcome potential of emerging change agents, define your priorities, and execute with a trusted set of partners.
- You will fail if you only optimize the front end. Most banks aren't delivering digitally driven value to customers as they cannot optimize end-to-end user experience beyond the front-office. Legacy systems and processes have to be modernized to enable effective and nimble business operations. This integration of front, middle, and back office is the OneOffice concept.
- You need a plan for legacy. Most established BFS enterprises are grappling with the Catch-22 of legacy too big and too risky to change versus too big and too risky not to change. Doing nothing will drive failure. Incremental options such as layering digital services and capabilities such as exposing APIs on top of existing platforms like core banking can buy time while broader modernization strategies are defined and executed. Banks are gaining some comfort with cloud-based platforms for non-core functions and we are starting to see increased use of cloud-based core banking systems with regional banks.



Recommendations for providers of BFS (1)

- If you are not actively and continually investing in your BFS business and cultivating expertise in related change agents, you are no longer the best option for your client. The BFS market for IT and business services is wildly competitive and the stakes are high. Very few providers can truly offer global, end-to-end services across the entire BFS value chain. Providers need to go deep in their areas of strength and ensure they can articulate (and deliver) business value.
- Position your value around service orchestration. Your value to BFS enterprises increasingly lies in your ability to leverage the right tools for the desired business benefits at the right time (with increasingly short time scales). Having a great depth of RPA talent, reams of data scientists, or your own cognitive IP platform are all valuable assets, but it's how they are used and how this value is articulated that separates a great provider from one focused on point projects. Not all BFS clients are at the stage of maturity where they are ready for service orchestration, but your ability to pivot the strategy to the big picture will help with the maturity curve.
- Spend less time on defining whether your capabilities are IT or business process focused and more time orchestrating change agents to drive business results for your clients. The distinction between IT services and business process services is blurred under the umbrella of digital transformation. Companies with IT and BPS capabilities insist on keeping them separate, but evolving DevOPs approaches suggests there are loads of benefits to bringing them together.
- > Help clients establish and manage their centers of excellence. Centers of excellence are becoming the new captives of the digital age. Many BFS firms set up CoEs to jumpstart their education about the value and benefits of emerging change agents. But, as the original educational purpose is fulfilled, service providers, who have been working double time to gain the same or greater levels of expertise, can help manage these CoEs with an eye toward aligning execution and benefit.



Recommendations for providers of BFS (2)

- Develop repeatable solutions for cross-BFS functions such as reporting, risk management, and compliance. Analyses of business processes to identify areas ripe for automation are also yielding a broader understanding of the similarity of certain processes across intra-bank operating units. As service providers build tools and platforms to automate and drive cognitive intelligence into functions such as KYC and customer onboarding, they can begin to leverage these as internal utilities sort of a next generation of shared services with a human/automation mix.
- » Creativity with commercial models can make the difference between winning a digital transformation deal versus having perpetual strategic conversations. Everyone wants to achieve 10X returns on investments, but the reality is that we generally need to start smaller. A service provider's ability to develop cost-neutral value propositions in year one can help get transformation, typically stage one automation, initiatives off the ground while delivering returns to their clients that can fund incremental growth.
- > Continue to educate the market. We can easily fall prey to believing digital business is a reality for all industries. It is not. In times of great change, it remains essential to invest in education, maintain open lines of communication, and to share experiences of success and failure.



About the authors and HfS



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Overview

- Elena Christopher is Vice President, Industry Research at HfS. Elena is responsible for driving the **industryspecific research agenda** for HfS - digging into the major trends impacting each in-scope industry and the implications for business process and IT services.
- She collaborates with her fellow analysts to cultivate the industry angle on major trends such as **automation**, **artificial intelligence**, **blockchain**, **digital business models and smart analytics**.
- Elena's primary coverage areas are **High-Tech**, **Banking & Financial Services and Telecommunications.** In addition, she drives the industry point of view across all HfS research.

Previous Experience

- Elena brings more than **20 years of IT and business process services expertise** to HfS, having served as either an advisor or vendor partner for major clients in industries such as financial services, high-tech, communications, retail, automotive and energy.
- She most recently led Strategy & Portfolio for **Conduent's** (formerly Xerox Services) Commercial business.
- Her previous roles include Managing Director, Research, Risk & Compliance at DTI; Vice President, Financial Services at Mobius Knowledge Services; Vice President, Research & Analytics at OfficeTiger/RR Donnelley; and Global Research Director, Gartner.

Education

• Elena holds a Bachelor of Arts degree in Sociology and Anthropology (cum laude) from Lewis and Clark College.



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Overview

• Mayank Madhur is a Knowledge Analyst at HfS Research, supporting different practice leads in secondary research, data analysis, PoVs and research writing.

Previous Experience

- Mayank has over 2 years of research, pre-sales and software development experience in Altimetrik and HCL Tech.
- In his HCL Tech role, he worked in the delivery team of a large medical device client for R&D project.
- At Altimetrik, he was part of the Strategic Business research team supporting Altimetrik vertical heads, sales and marketing team. He also worked in profiling of prospective M&A targets in areas of interest and providing analytical support for benchmarking of company and peer analysis.

Education

- Mayank holds a Master's in Business Administration from Birla Institute of Technology and Science College, Pilani (BITS, Pilani University) and a Bachelor of Engineering in Electrical and Electronics from Jawaharlal Nehru National College of Engineering (Visvesvaraya Technological University), Karnataka.
- Mayank is passionate about fiction and mythology-related novels and development of excel-based applications.



2018 Industry Blueprints

Dimension	Blueprint Name	Author(s)	Publishing Quarter	Planned start	Planned completion
Business Services	Banking and Financial Services Business Services	Elena Christopher	Q2 2018	Feb-18	Apr-18
	Insurance Business Services	Reetika Fleming	Q2 2018	Mar-18	May-18
	Energy Business Services	Derk Erbe	Q2 2018	Feb-18	Jun-18
	Utilities Business Services	Derk Erbe	Q2 2018	Jan-18	Apr-18
	Manufacturing Business Services	Pareekh Jain	Q4 2018	Aug-18	Oct-18
	Telecom Business Services	Elena Christopher	Q2 2018	Apr-18	Jun-18
	High-Tech Business Services	Elena Christopher	Q3 2018	Jul-18	Sep-18
	Retail Business Services	Melissa O'Brien	Q3 2018	Jun-18	Aug-18
	Travel & Hospitality Business Services	Melissa O'Brien	Q3 2018	May-18	Jul-18
	Healthcare Business Services	Saurabh Gupta	Q4 2018	Aug-18	Oct-18
	Life Sciences Business Services	Saurabh Gupta	Q4 2018	Sep-18	Nov-18
IT Services	Banking Financial Services IT Services	Elena Christopher, Jamie Snowdon	Q3 2018	Aug-18	Sep-18
	Insurance IT Services	Reetika Fleming, Jamie Snowdon	Q3 2018	Aug-18	Sep-18
	Energy IT Services	Derk Erbe, Jamie Snowdon	Q4 2018	Nov-18	Dec-18
	Utilities IT Services	Derk Erbe, Jamie Snowdon	Q4 2018	Sep-18	Oct-18
	Manufacturing IT Services	Pareekh Jain, Jamie Snowdon	Q4 2018	Oct-18	Nov-18
	Telecom IT Services	Elena Christopher, Jamie Snowdon	Q4 2018	Oct-18	Nov-18
	Retail IT Services	Melissa O'Brien, Jamie Snowdon	Q4 2018	Oct-18	Dec-18
	Travel & Hospitality IT Services	Melissa O'Brien, Jamie Snowdon	Q3 2018	Jul-18	Sep-18
	Healthcare IT Services	Saurabh Gupta, Jamie Snowdon	Q4 2018	Nov-18	Dec-18
	Life Sciences IT Services	Saurabh Gupta, Jamie Snowdon	Q4 2018	Nov-18	Dec-18
	High-Tech IT Services	Elena Christopher, Jamie Snowdon	Q4 2018	Sep-18	Oct-18



HfS Research: Defining Future Business Operations

The HfS mission is to provide visionary insight into the major innovations impacting business operations: Automation, Artificial Intelligence, Blockchain, Internet of Things, Digital Business Models and Smart Analytics.

HfS defines and visualizes the future of business operations across key industries with its OneOffice[™] Framework.

HfS influences the strategies of enterprise customers, to help them develop OneOffice backbones to be competitive and to partner with capable services providers, technology suppliers, and third-party advisors. The "<u>As-a-Service Economy</u>" and "<u>OneOffice</u>" are revolutionizing the industry.

Read more about HfS and our initiatives on our <u>website</u>.

