



HfS Blueprint Report

Telecom Operations Services

Excerpt for TCS

Evaluation of Social, Mobility, Analytics, Cloud, and Automation (SMACA) Solution Capabilities of Telecom Operations Service Providers

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Executive Summary



Introduction to the HfS Blueprint Report: Telecom Operations Services

- The Telecom Operations Services HfS Blueprint Report is the first application of HfS Blueprint methodology for the use of enabling technologies—social, mobility, analytics, cloud, and automation (SMACA)—in the telecom operations services marketplace. Unlike other quadrants and matrices, the HfS Blueprint identifies relevant differentials between service providers across numerous facets in two main categories: innovation and execution.
- HfS Blueprint Report ratings depend on a broad range of stakeholders with specific weightings based on 1,300+ crowd-sourced responses. Stakeholders include:
 - BPO Enterprise Buyers
 - BPO Service Providers
 - BPO Industry Influencers (sourcing advisors)
 - HfS Analysts

Key Highlights

State of the Telecom Operations Services Market

- **SMACA Will Drive Growth in Telecom Operations Services.** Our research suggests the potential global telecom operations market (i.e., business processes under network, fulfillment, assurance, and billing) could be as large as **\$10 Billion**, although the current market is perhaps **\$3 Billion**. The market size of SMACA solutions in telecom operations is presently about **\$200 Million** (7% of the telecom operations market) with the potential to reach **\$2.5 Billion** (25% of the potential telecom operations market). Tier 1 telcos have generally been early adopters of telecom operations services. Now, there is an opportunity to provide services to Tier 2 and Tier 3 telcos, too.
- **Different SMACA Approaches by Telecom Operations Service Providers.** The **seven** service providers we evaluated for this Blueprint approach this market in essentially two ways. Service providers with strong IT offerings focus more on mobility and cloud-based solutions whereas pure-play BPO service providers focus more on analytics-based solutions. Automation is on the agenda of all telecom operations service providers while social is an emerging area.
- **Telecom-Specific SMACA Offerings, IT and BPO Synergy, Value Beyond Cost, and Strong Digital Vision Separate Winners from Others.** There are three service providers in the Winner's circle—**Accenture, TCS, and Tech Mahindra**. Four things are common across all three winners—telecom-specific SMACA offerings, strong IT, and BPO synergy validated with customer case studies, experience in delivering innovation or value beyond cost validated by customers, and a strong and compelling digital vision exhibited by their initiatives, plans and PoCs.

Research Methodology



Research Methodology for the Telecom Operations Services Blueprint

Data Summary

- More than 1,600 data points were collected from more than 100 live telecom operations services contracts, covering seven major service providers with additional smaller profiles of two additional service providers in telecom operations services.
- Data was collected in Q3/Q4 of 2014, covering buyers, providers, and advisors/influencers of telecom operations services.

Participating Service Providers

accenture



Infosys®



Tech
Mahindra

This Report Is Based On:

- **Tales from the Trenches:** Interviews with buyers who have evaluated service providers and experienced their services. Some were supplied by service providers, but many were interviewed through interviews conducted with HfS Executive Council members and participants in our extensive market research.
- **Sell-Side Executive Briefings:** Structured discussions with service providers were intended to collect the data necessary to evaluate their innovation, execution and market share, and deal counts.
- **HfS 2014 “State of Outsourcing” Survey:** The industry’s largest quantitative survey, conducted with the support of KPMG, covering the views, intentions, and dynamics of 1,300+ buyers, providers, and influencers of outsourcing.
- **Publicly Available Information:** Financial data, website information, presentations given by senior executives, and other marketing collateral.

Key Factors Driving the HfS Blueprint

Evaluation Criteria

Two major factors:

- **Execution** represents service providers' ability to deliver services. It includes:
 - Solutions in the Real World
 - Quality of Customer Relationships
 - Flexibility
- **Innovation** represents service providers' ability to improve services. It includes:
 - Vision
 - Integration of BPO and ITO
 - Concrete Plans to Deliver Value Beyond Cost
 - Leveraging External Drivers - SMACA

Criteria Weighting

Criteria are weighted by crowdsourcing weightings from the four groups that matter most:

- Enterprise Buyers [\$5B+] (20%)
- Buyers (20%)
- Service Providers (30%)
- HfS Research Analysts Team (20%)
- Advisors, Consultants, and Industry Stakeholders (10%)

Weightings from this report come from HfS's July 2014 State of Outsourcing Study

HfS Blueprint Scoring Percentage Breakdown

EXECUTION		40.00%
Quality of Customer Relationships		16.00%
Quality of Account Management Team	8.00%	
How Service Providers Engage Customers and Develop Communities	4.00%	
How Service Providers Incorporate Customer Feedback	4.00%	
<hr/>		
Real-World Delivery Solutions		14.00%
Actual Delivery of Services for Each Sub-Process	4.00%	
Network	1.00%	
Fulfillment	1.00%	
Assurance	1.00%	
Billing	1.00%	
Geographic Footprint and Scale	4.00%	
Usefulness of Services to Specific Client Needs of All Sizes	6.00%	
Flexibility to Deliver End-to-End Solutions and Point Solutions	3.00%	
Experience Delivering Solutions to Telcos of All Sizes	3.00%	
<hr/>		
Flexible Pricing Models to Meet Customer Needs		10.00%
<hr/>		
INNOVATION		60.00%
Vision for End-to-End Process Lifecycle		15.00%
Concrete Plans to Deliver Value Beyond Cost and Investment in Future Capabilities	5.00%	
Integration of Technology in Business Processes	6.00%	
Continuous Improvement Methodology and Capability	4.00%	
<hr/>		
Vision for Where the Telecom Operations Services Market Is Headed and How to Respond as a Service Provider		12.00%
<hr/>		
Ability to Leverage External Value Drivers		33.00%
Integrating SMACA (Social, Mobility, Analytics, Cloud, and Automation) in Delivery	30.00%	
Incorporate Regulatory Requirement Quickly and Proactively	3.00%	
<hr/>		
TOTAL		100.00%

Execution Definitions

EXECUTION	How well does the provider execute on its contractual agreement, and how well does the provider manage the client/provider relationship?
Quality of Customer Relationships	How engaged are providers in managing the client relationship based on the following metrics: quality of account management, service provider/client engagement, and incorporation of feedback?
Quality of Account Management Team	What is the level of the account management team's professional skills?
How Service Providers Engage Customers and Develop Communities	How well does the service provider engage clients and develop client communities?
How Service Providers Incorporate Customer Feedback	How have service providers taken feedback and incorporated that feedback into their product/solution?
Real-World Delivery Solutions	Does the solution provided compare favorably to the service agreed upon when taking into account the delivery of services for each sub-process and geographic footprint and scale?
Actual Delivery of Services for Each Sub-Process	Taking into account each sub-process and the entire macro process, does each sub-process sum to successful delivery of the service being provided? For example, in the telecom operations macro process of fulfillment, are all sub-processes being delivered successfully?
Geographic Footprint and Scale	Specific to the category, to what degree do service providers have geographic locations that offer strategic value, and do they have scale?
Usefulness of Services to Specific Client Needs of All Sizes	How flexible and experienced are providers when they tailor solutions based on client size, location, and type of solution (end-to-end and single point)?
<i>Flexibility to Deliver End-to-End Solutions and Point Solutions</i>	How flexible are providers with delivering multi-process end-to-end solutions vs. single-point solutions?
<i>Experience Delivering Solutions to Telcos of All Sizes</i>	How experienced are providers at delivering solutions for the specific needs of telcos of different sizes?
Flexible Pricing Models to Meet Customer Needs	How flexible are providers when they determine contract pricing? Are they willing to make investments in the client's firm for long-term growth?

Innovation Definitions

INNOVATION	Innovation is the combination of improving services and business outcomes.
<p>Vision for End-to-End Process Lifecycle</p>	<p>The strategy for delivery services to each part of the process “value chain.” For example, in Finance and Accounting, the components of the value chain may include order to cash, record to report, and procure to pay. In Telecom Operations Services, the components of the value chain include network, fulfillment, assurance, and billing.</p>
<p>Concrete Plans to Deliver Value Beyond Cost and Investment in Future Capabilities</p>	<p>Clear understanding of what value levers exist and how the service provider will deliver that value. Examples of value may include labor arbitrage, innovation, quality, resources, revenue, global scale, and flexibility.</p>
<p>Integration of Technology in Business Process</p>	<p>How the service provider integrates applications in the delivery to improve value for clients. The service provider may also develop in-house software and tools for providing point solutions for addressing specific telco pain points such as revenue leakage, opex reduction, churn reduction, capex efficiency, customer experience improvement, etc.</p>
<p>Continuous Improvement Methodology and Capability</p>	<p>How well does the provider execute on improving the business process and capabilities of their solutions?</p>
<p>Vision for Where the Telecom Operations Market Is Headed and How to Respond as a Service Provider</p>	<p>Does the provider have a vision for how the Telecom Operations Services market is developing and how they need to respond as a service provider to these changes in terms of specific SMACA capabilities and their commercial and operating approach?</p>
<p>Ability to Leverage External Value Drivers</p>	<p>How well have providers integrated external value drivers in their services? Examples include use of SMACA and regulatory requirements.</p>
<p>Integrated SMACA into Delivery</p>	<p>How well does the provider leverage social, mobility analytics, cloud, and automation (SMACA) in their solutions?</p>
<p>Incorporate Regulatory Requirement Quickly and Proactively</p>	<p>How well does the provider incorporate the latest regulatory requirement and proactively integrate future regulatory requirements?</p>

Value Chain in Telecom Operations Services

Network

Fulfillment

Assurance

Billing

Network Design & Planning	Order Management	Technical Help Desk	Billing Desk
Network Rollout Management	Provisioning	Incident & Problem Management	Pricing Management
Network Inventory Management	Activation	Field Force Management	Billing Management
Network Performance Management	Order Fallout Management	Service Level Management	Assurance

Source: HfS Research 2014

Examples* of SMACA Solutions Across Telecom Operations Services Value Chain

	Network	Fulfillment	Assurance	Billing
Social	Network Prediction Based on Social Data	Omni-Channel Contact Center: Orders	Omni-Channel Contact Center: Technical	Omni-Channel Contact Center: Billing
Mobility	Network Rollout Management	Fulfillment Apps	Field Force Management	Billing Apps
Analytics	Network Access Analytics: Cost & Capacity Analytics	Order Analytics: Order Leakage Analytics	Network Performance Analytics: Fault & Predictive	Subscriber Analytics: Churn Analytics
Cloud	Cloud-Based Network Services	Cloud-Based Fulfillment Services	Cloud-Based Assurance Services	Cloud-Based Billing Services
Automation	Network Rollout Automation	Desktop Automation	Robotics & Virtual Agents	Billing Automation

Source: HfS Research 2014

*Representative Examples of SMACA Solutions Under Network, Fulfillment, Assurance, and Billing

Service Provider Capabilities



Winner's Circle and High-Performers Methodology

To distinguish providers that have gone above and beyond within a particular line of delivery, HfS awards these providers a “Winner’s Circle” or “High Performer” designation. Below, a brief description of the general characteristics of each designation is provided:

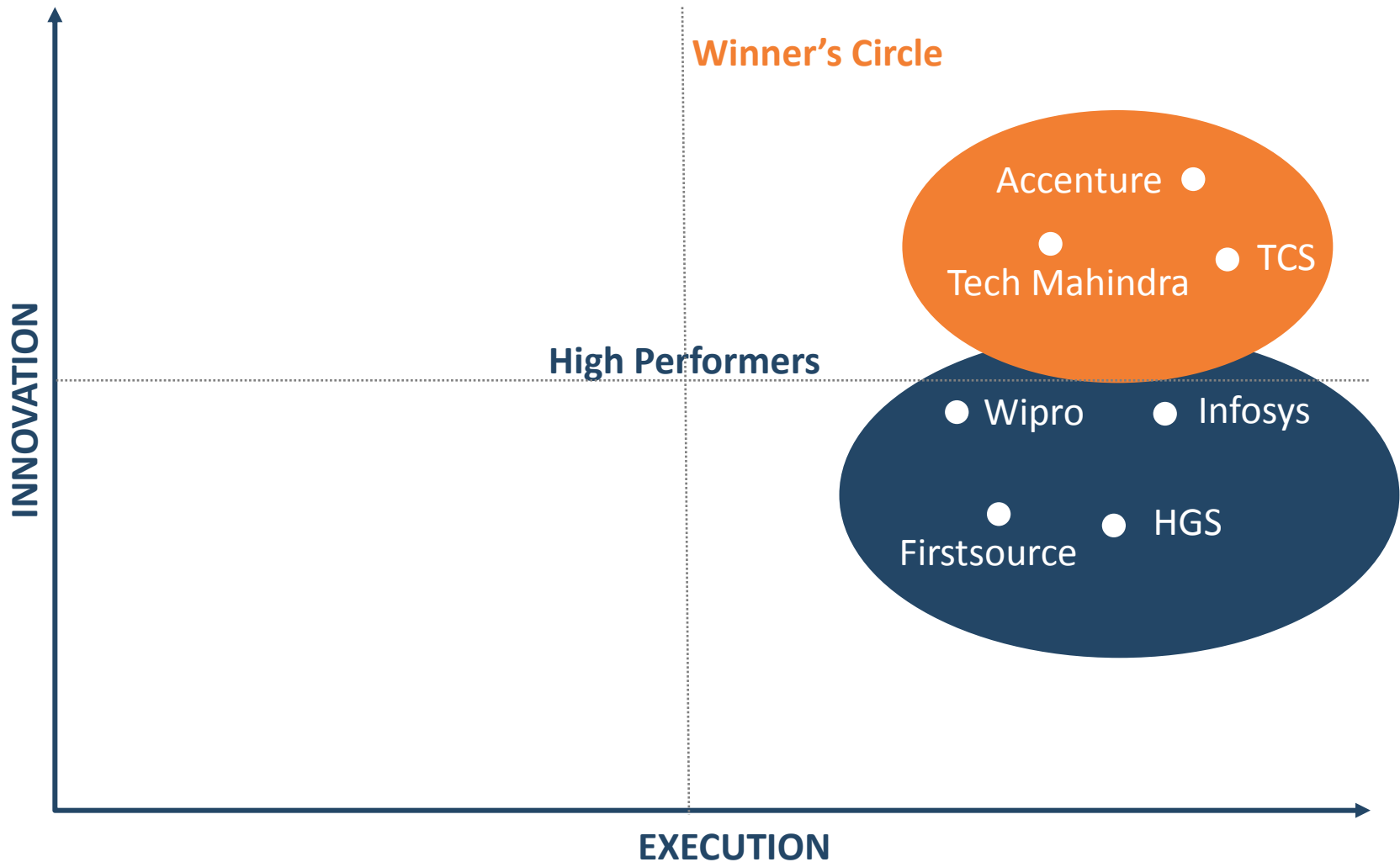
Winner's Circle: Organizations that demonstrate excellence in execution and innovation.

- From an *execution* perspective, providers have developed strong relationships with clients, execute services beyond the scope of hitting green lights, and are highly flexible when meeting clients’ needs.
- From an *innovation* perspective, providers have a strong vision, concrete plans to invest in future capabilities, and a healthy cross-section of vertical capabilities, and have illustrated a strong ability to leverage external drivers to increase value for their clients.

High Performers: Organizations that demonstrate strong capabilities in execution and innovation but lack an innovative vision or execution against their vision.

- From an *execution* perspective, providers execute some of the following areas with excellence but not all: High performers have developed worthwhile relationships with clients, execute their services and hit all of the green lights, and are very flexible when meeting clients’ needs.
- From an *innovation* perspective, providers typically execute some of the following areas with excellence, but not all: have a vision and demonstrated plans to invest in future capabilities, have experience delivering services over multiple vertical capabilities, and have illustrated a good ability to leverage external drivers to increase value for their clients.

HfS Blueprint 2014: Telecom Operations Services Blueprint



Source: HfS Research 2014

Major Service Provider Dynamics – Highlights

EXECUTION

- **TCS Delivers Solutions to Telcos of All Sizes (Winner's Circle)**
 - The TCS cloud-based *HOBS* solution is applicable to greenfield telcos, MVNOs as well as incumbent telcos that want to change their technology stack and leverage it for BPaaS. The solution has the flexibility to be implemented as a whole or in separate modules.
- **Infosys Delivers and Manages Customer Accounts Very Well (High Performer)**
 - Reference clients are particularly happy and praise Infosys' delivery, account management, and attrition management in the engagements. In one particular engagement, Infosys has retained key delivery personnel for the last 10 years and helped them grow and provide value to the client without disruption. Infosys has continuously improved client processes and enlarged the scope of engagement from simple data cleansing to complex telecom analytics over the last few years. Clients also appreciate Infosys' focus on key business metrics.
- **HGS Offers Flexible Pricing Models (High Performer)**
 - HGS offers a pricing model in which the end-user client or third party pays for customer voice and chat services. HGS has showcased the initial success of this pricing model with a government client and is extending the model to telcos.
- **Firstsource Engages Customers (High Performer)**
 - Firstsource conducts annual telecom roundtable conferences in the UK and the US every year where it invites current and prospective customers and discusses telecom industry trends, challenges, and best practices.

INNOVATION

- **Accenture Thrives on Technology-Led Vision of As-a-Service Economy (Winner's Circle)**
 - Accenture has been investing in and developing tools and technology for telecom digital operations. It has a strong vision to gradually transform telcos' business and its own business toward digital operations, where an increasing proportion of the business processes can be delivered as BPaaS.
- **Tech Mahindra Paints a Compelling Digital Telecom Vision (Winner's Circle)**
 - Currently, 10% of Tech Mahindra's telecom BPO revenue comes from SMACA solutions, and it plans to increase this to 25% revenue in coming years. Tech Mahindra started in the telecom vertical so its digital solutions are very well aligned to the needs of telecom clients.
- **Wipro Excels in Analytics (High Performer)**
 - Wipro has demonstrated strong analytics capability in churn analytics, segmentation, campaigns, and network analytics with case studies of delivered business outcomes. Wipro is working on large annuity-based analytics engagements with more than 200 FTEs for a few telcos. Wipro has developed "Telecom Insight" that has pre-built analytics solution components for telcos. Wipro has also developed a real-time tool that predicts the propensity to churn within the first 30 seconds of the call and suggests the next best action.

Key SMACA Dynamics in Telecom Operations Services

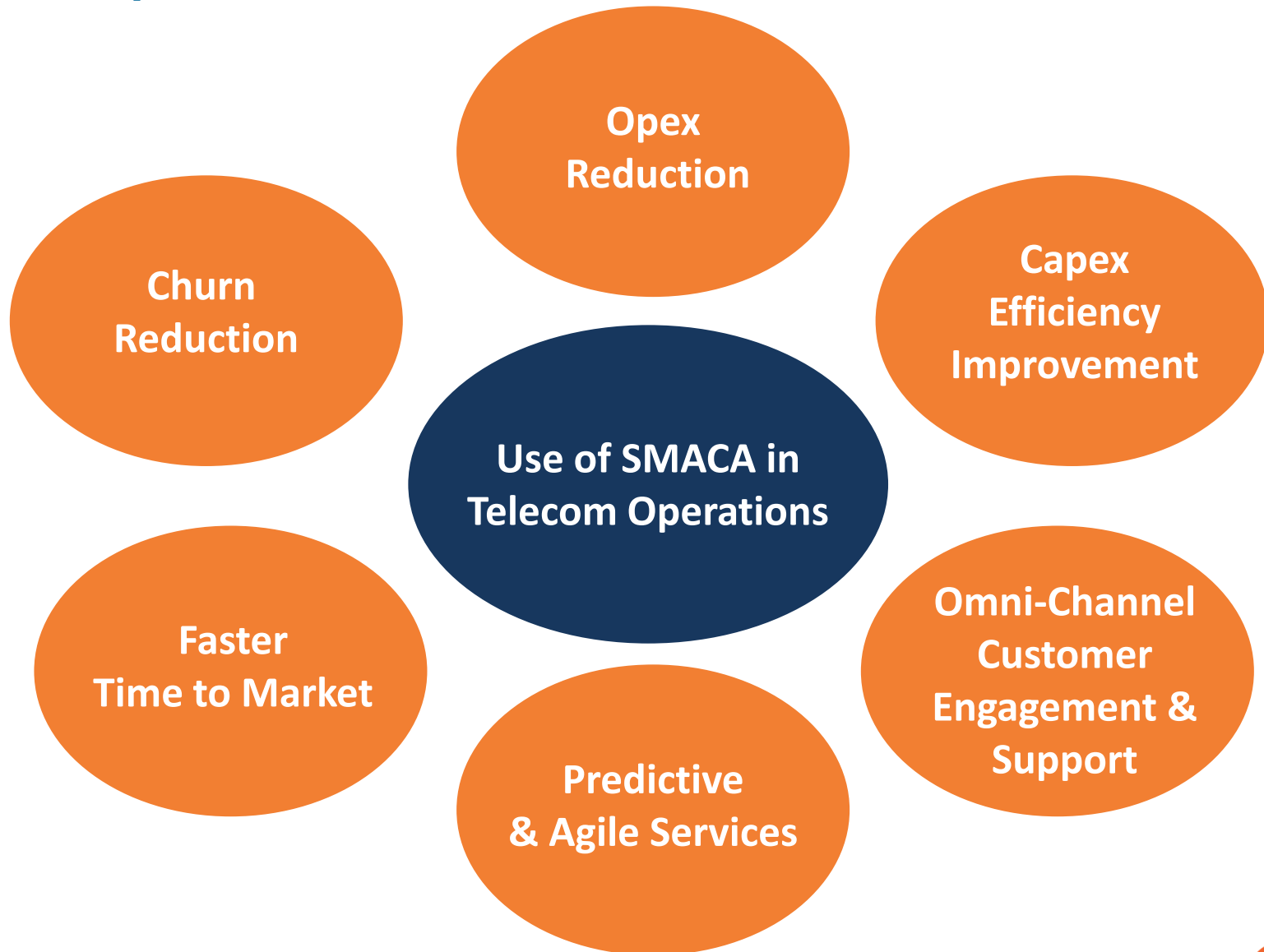
- **SMACA Solutions Are Driving Telecom Operations Toward As-a-Service.** An increasing proportion of business processes can be delivered as BPaaS in telecoms. A key enabler of this movement is the synergy between IT and BPO in which business processes are delivered on a specialized technology stack. Service providers with strong IT offerings—Accenture, TCS, and Tech Mahindra—are leading this space. Pure-play BPO players are competing by partnering with third-party technology firms.
- **Separating Signals from Noise.** The SMACA solutions in Telecom Operations Services are for real. HfS has come across numerous case studies along with PoCs that convince us of the presence and applicability of SMACA in this market segment.
- **Small Steps Today, Big Difference Tomorrow.** The contract size for SMACA solutions is small today, but it has the potential to become big in the future. The revenue share of the SMACA solution for service providers we evaluated is about 7 % of their telecom BPO revenue. In the next five years, some service providers believe that SMACA solutions will account for up to 25% of their telecom BPO revenue.
- **Customer Relationships Matter.** One of the issues for service providers that want to incorporate SMACA solutions into their business is that there are few third-party advisors with the depth and experience to help guide buyers. Most opportunities start with a PoC, pilot, or small-scale implementation. This sole-source, relationship-driven approach further emphasizes the importance of quality relationships with customers.
- **Service Providers Are Leveraging SMACA to Move Up the Telecom Operations Value Chain.** A few service providers—Accenture, TCS, and Tech Mahindra—have started to expand their scope of services beyond IT and BPO, by offering network services and business advisory services. These services were once the exclusive domain of telecom equipment providers and management consulting firms.

Telco Pain Points Addressed by Service Providers

In order to provide new value to buyers, service providers are incorporating enabling technologies into their solutions as well as using new ways to collaborate on solving problems. One of the approaches HfS has seen used with success is “design thinking,” a prototype-based process for innovation based on observations and interactions with users.

Pain Points	Impact	Solutions
Competition from the Over The Top (OTT) players	<ul style="list-style-type: none"> • Revenue reduction • Requirement for opex decrease 	<ul style="list-style-type: none"> • Opex reduction through cloud, analytics, and automation solutions
Requirements for new 4G/LTE and FTTx rollouts	<ul style="list-style-type: none"> • High capex requirement • Faster time-to-market requirement 	<ul style="list-style-type: none"> • Capex efficiency and time-to-market improvement through social, mobility, analytics, and automation solutions
High customer expectation of superior customer experience and support	<ul style="list-style-type: none"> • High network availability requirement • Customer churn • Customized service requirements • Superior customer support requirement across all channels 	<ul style="list-style-type: none"> • Planning with social and analytics solutions • Implementation of mobility, cloud, and automation solutions • Innovation through “design thinking”
Requirements for rollout of new services	<ul style="list-style-type: none"> • Faster time-to-market requirement • Opex reduction while providing new services for services viability 	<ul style="list-style-type: none"> • Planning with analytics • Opex reduction by cloud, analytics, and automation solutions

Multi-Faceted Value Proposition that SMACA Solutions Bring to Telecom Operations



SMACA Solutions Examples – Social

SOCIAL MEDIA

- **Network outage prediction.** Predicting based on social media posts in particular zip/postal codes.
- **Network coverage planning.** Decision making regarding network upgrades and roll-outs based on customers' social media conversations about problems with network coverage, speed, and quality.
- **Customer support.** Responding to customer requests or complaints received via social channels in pre-agreed SLAs.
- **Social media analytics.** Identifying issues and customer pain points based on social media posts, e.g., billing process, over-charging, resolution time, etc. Identifying influencers and advocates.
- **Sentiment analysis.** Analyzing customer sentiments based on social media posts.
- **Social community management.** Establishing and operating social communities where peers may answer questions posed by other community members.
- **Social media competitive analytics.** Analyzing social media response time, volume, etc., comparing it with competitors', and identifying opportunities for improvement/differentiation.
- **Generating leads through social media.** Sending customized messages to the telco's own customers as well as competitors' customers.
- **Social rating point.** Rating sitcoms and other entertainment programs by offered by telcos based on social media conversations.
- **Crisis management.** Containing the fallout of any crisis generated by negative viral social media posts.

SMACA Solutions Examples – Mobility

MOBILITY

- **Workforce physical mobility.** Workforce optimization and mobility improvement using capability forecast, scheduling, dispatch, supply chain, and workforce procedures and support, better tools, technology, and access to relevant information at the right time and place. Supply and spare parts planning to ensure the right material at the right place for field technicians.
- **Workforce mobility applications.** Applications in which sales can input the order directly on a mobile device and view customer order status to get real or near-real-time updates on each order. Applications that enable access of relevant data and KPIs by agents and managers from multiple systems. Applications for incident management for the workforce.
- **Subscribers' mobility applications.** Applications that allow self-service through quick access to specific account information, the ability to view and pay bills, modify profile information, access location-based and other value-added services, redeem reward points, purchase additional products or services, etc. Applications that allow access to long distance landline calls through smartphones.
- **Devices support.** Automatic real-time updates on port utilizations on hand-held devices whenever the threshold is reached. Remote management of connected devices.
- **Subscribers' physical mobility.** Supporting subscribers' mobility with a dedicated concierge solution to take care of their connection requirements upon relocation.

SMACA Solutions Examples – Analytics

ANALYTICS

- **Churn analytics.** Analyze and predict potential churn. For example: early attrition analysis, impact of field dispatches on customer churn, impact of customer interactions (frequency and mode) on customer churn, impact of subscriber demographics on customer churn, impact of usage on customer churn, suggesting NBA (next best actions), campaign analytics.
- **Real-time interaction analytics.** Assessment of positive and negative interaction in the first few seconds of the call, which provides the opportunity to intervene and change the course.
- **Billing analytics.** Revenue enhancement through analytics of unbilled orders. Circuit inventory analytics. Impact of subscriber demographics on customer billing.
- **Order analytics.** Order backlog analytics. Order fallout analytics to plug revenue leaks.
- **Network and assurance analytics.** Network capacity analytics for optimum usage. Predictive network analytics. Financial analytics for selecting optimum network maintenance and augmentation plans.
- **Performance analytics.** Analytics for improving first-time-right ratio. Analyze and report performance according to service level agreements.
- **Regulatory and fraud analytics.** Carry out regulatory support and fraud analytics for any inflated usage charges.
- **Contract analytics.** Conduct contract novation based on usage and costing analytics in different geographic or product segments.

SMACA Solutions Examples – Cloud

CLOUD

- **Service assurance.** A cloud-based platform for incident management that drives significant savings and shortens time to repair by ensuring tickets are solved at the first instance.
- **Provisioning services.** A cloud-based provisioning and porting platform that provides automated port-in number porting between different carriers.
- **Order management.** A cloud-based platform for orchestrating and optimizing the order to activation process. It provides visibility into the complete order management process.
- **Social media command center.** A cloud-based platform for providing social media support and data-based customer engagement.
- **Order fallout management.** A cloud-based platform for predicting potential order fallouts and proactively fixing them.
- **Remote technical support.** A cloud-based platform for providing billable remote technical support to customers.
- **OSS/BSS solution.** A cloud-based platform with pre-built eTOM aligned telecom processes.

SMACA Solutions Examples – Automation

AUTOMATION

- **Service desk and web chat automation.** Increasing productivity of L1 support with automated tools. The use of robots to answer simple queries and repetitive questions.
- **Field force automation.** Enabling field technicians to work effectively by automating some of their processes and providing technical and operational expertise on demand. Using Google Glass to automate video transfer of network repair and automate ticket closure. Using automation to reduce false or ghost tickets, thus reducing the mean time to repair.
- **Network drawing automation.** Reducing network drawing time by automating network diagram production and analysis process.
- **Order management and provisioning automation.** Performing automatic quality checks in order management and provisioning processes, thus saving activation time.
- **Billing automation.** Automating the majority of audit checks in the billing process, thus reducing FTE effort and AHT.
- **Automated self-care.** Automated technical scan for subscribers, to identify issues that could impede service performance.
- **Application automation.** Provide a unified or single screen/source of information to agents by eliminating switching from screen to screen. Provide a unified application to the workforce in the field by integrating other applications for the workforce in the field.

Design Thinking in Telecom Operations

“Design thinking” focuses on problem solving through human interaction and prototyping.* HfS has observed the impact of this approach used by a number of service providers, including HGS, TCS, and Accenture. Infosys is incorporating design thinking into their process and service methodology as well.

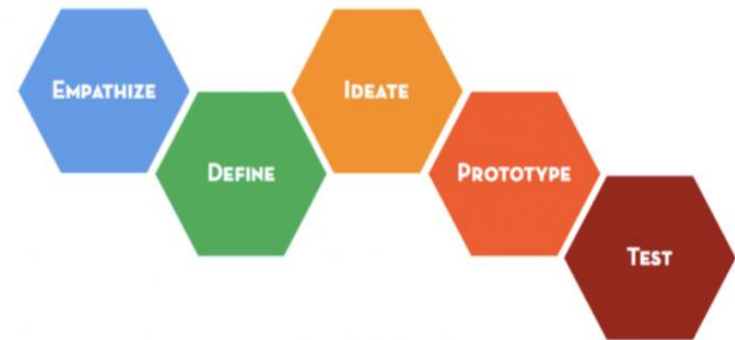
In “design thinking,” innovation is powered by a thorough understanding, through direct observation, of what users want and need in their lives, and what they like or dislike about the way particular products or services are made, packaged, marketed, sold, delivered, and supported. It puts people at the center of product, service, and business design.

In a conventional problem-solving approach, we start with defining the problem and parameters and then arrive at a solution analytically. In “design thinking,” there is a step before defining the problem that can be called empathy—understanding the world from a user’s perspective. This understanding helps in imagining the solution that can satisfy users’ explicit and latent needs.

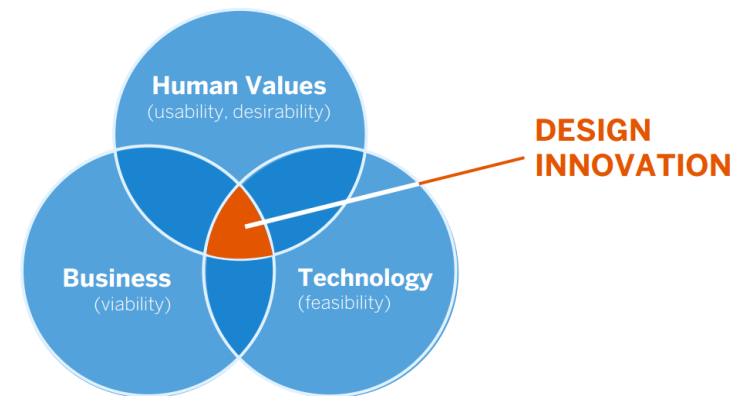
Source *: Brown, Tim. (2008). Design Thinking. Harvard Business Review, 86(8), 84-92.

Source **: Hasso Plattner Institute of Design at Stanford

Design Thinking Process**



Three Evaluating Lenses of Design Thinking**



Design Thinking Example in Telecom Operations 1(3)

In telecom operations, HfS came across a number of examples of “design thinking,” in which observation of frustration points among telcos’ external subscribers and within a telco’s internal workforce led to innovative solutions.

	Observation/Empathy	Design Thinking Solution	Service Provider	Evaluating Lens
Observation of External Subscribers	When subscribers move to a new house, the task of shifting landline and broadband connections can be very frustrating. It can take more than four calls by subscribers and a lot of correspondence back and forth to get the connection up and running again. In fact, it can be such a frustrating process that subscribers simply give up on the incumbent and start fresh with another provider, which drives up churn for the incumbent.	After understanding the issue and conducting an ideation session, the service provider proposed an innovative solution of a dedicated home concierge desk that is specially trained in relocation services. The desk provides a dedicated point of contact and handles all of the connection relocation work proactively for subscribers. This resulted in a 70% average call reduction and an improvement in customer experience and a 50% decline in churn.	HGS	Business - Viability

Design Thinking Example in Telecom Operations 2(3)

	Observation/Empathy	Design Thinking Solution	Service Provider	Evaluating Lens
Observation of Internal Workforce	<p>The telco’s team in the field who fix network sites often work in conditions that dirty their hands. To complete their tasks and close the job order, they may have to take pictures of the network installation or the repair work, and they have to send the pictures to the appropriate department.</p> <p>Only after the pictures are received is the ticket closed and updated in the system. It is difficult to complete these tasks with dirty hands. Instead, field support may wait to do this at the end of the day.</p> <p>As a result, the process and ticket closings may be delayed, adversely impacting performance SLAs, customer communication, and experience.</p>	<p>The telecom operations service provider understood this problem after observing personnel in the field and proposed a “Google Glass”–based solution. They now wear “Google Glass,” which enables the automatic transfer of pictures/video through custom applications, and the ticket closes upon completion of the work without any additional intervention.</p>	TCS	Technology - Feasibility

Design Thinking Example in Telecom Operations 3(3)

	Observation/Empathy	Design Thinking Solution	Service Provider	Evaluating Lens
Observation of External Subscribers	Some high-value subscribers were not happy with the customer support they were getting from a telco, and it was leading to the increase in churn. High-value subscribers had higher expectations of customer support from the telco and even expected customized service.	<p>After understanding the issue and conducting an ideation session, the service provider proposed an innovative solution for customer segmentation based on parameters such as monthly spend, number of products, tenure, loyalty, etc. The service provider concurrently analyzed performance of all customer agents and assigned them segments based on their rankings in performance metrics.</p> <p>The service provider then implemented a technical solution that connected customers in the high-value segment to higher-ranked agents in real-time. This resulted in increased CSAT scores.</p>	Accenture	Technology - Feasibility

Service Provider Profile



Services Capabilities Across Service Providers

accenture

Social	Mobility	Analytics	Cloud	Automation
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Network	Fulfillment	Assurance	Billing
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TATA
TATA CONSULTANCY SERVICES

Social	Mobility	Analytics	Cloud	Automation
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Network	Fulfillment	Assurance	Billing
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Tech
Mahindra

Social	Mobility	Analytics	Cloud	Automation
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Network	Fulfillment	Assurance	Billing
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Infosys®

Social	Mobility	Analytics	Cloud	Automation
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Network	Fulfillment	Assurance	Billing
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WIPRO
Applying Thought

Social	Mobility	Analytics	Cloud	Automation
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Network	Fulfillment	Assurance	Billing
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HGS®
HINDUJA GLOBAL SOLUTIONS

Social	Mobility	Analytics	Cloud	Automation
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Network	Fulfillment	Assurance	Billing
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firstsource

Social	Mobility	Analytics	Cloud	Automation
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Network	Fulfillment	Assurance	Billing
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Full Offerings/Capabilities
Partial Offerings/Capabilities
Yet to Develop

Leading offshore-centric service provider with strong IT and BPO synergy and technology-led innovation

Strengths	Challenges
<ul style="list-style-type: none"> • Technology Business Integration. TCS has successfully integrated technology in its engagements with <i>HOBBS</i>, the cloud-based OSS/BSS solution, and leveraged it to provide business process as a service (BPaaS) to telcos. Reference customers confirmed that they have benefited from the IT and BPO synergy that TCS brings to the engagements. • Automation, Innovation and Value Beyond Cost. TCS is providing support in non-English languages (Swedish, Norwegian, etc.) to telcos with the help of automation and innovative process changes. TCS has also demonstrated other case studies of automation and innovation such as implementing a Google Glass-based solution to improve operations in the field that create value and drive business outcomes that go beyond cost reduction alone. • Strong Delivery and Pricing Flexibility. Reference clients have nothing but praise for TCS's delivery capability and pricing flexibility. According to customers, TCS over-delivers on SLAs and doesn't shy away from making advance investments in capability development. TCS is also offering outcome-based pricing where TCS will deliver the pre-agreed telco's Opex savings. • Flexibility to Deliver End-to-End and Point Solutions. The TCS cloud-based <i>HOBBS</i> solution is applicable to greenfield telcos, MVNOs as well as incumbent telcos that want to change their technology stack and leverage it for BPaaS. The solution has the flexibility to be implemented as a whole or in separate modules. 	<ul style="list-style-type: none"> • Partnerships and Competition. TCS lacks partnerships with telecom equipment providers and OSS/BSS vendors compared to some of its peers. Going solo has helped TCS build its technology stack in OSS and BSS. This technology stack enables TCS to provide BPaaS services to telcos, but a lack of partnerships can hinder TCS from offering a total solution in the larger telecom ecosystem. As TCS OSS/BSS solutions gains market share, TCS will face strong competition from OSS/BSS vendors in addition to the competition from other Telecom Operations BPO service providers. • Getting Best of TCS. While customer references have confirmed that they benefited from the TCS IT and BPO synergy, they also highlighted a few instances where a minor problem in IT had a cascading effect on the BPO delivery. TCS should be able to resolve the interdependency issues with better contingency planning, proactiveness, and coordination. • Vision of Moving Up in the Telecom Value Chain. TCS has the complete set of offerings in SMACA. TCS's next challenge and opportunity is to move up in the value chain and start providing offerings traditionally provided by the telecom equipment providers and the management consulting firms. TCS has started offering financial analytics combined with predictive analytics, but the overall new set of offerings doesn't feature heavily in its immediate priorities.

Relevant Acquisitions/Partnerships	Key Clients	Global Operations Centers	Technology Tools and Platforms
<ul style="list-style-type: none"> • Partnership with Oracle for CM, CRM, order management, billing, inventory management, activations, EAI, PM • Partnership with IBM for mCommerce, eCommerce, CRM, service assurance, EAI • Partnership with Microsoft for mCommerce, eCommerce, SCM, CRM, PM, mobility solutions • Partnership with Tata Communications Transformation Services for network engineering and design 	25+ telecom clients, including: <ul style="list-style-type: none"> • A Leading Malaysian Telco • A Leading British Telco • A leading US Telco • A Leading Australian Telco • A leading Finnish Telco • A Leading Swedish Telco • A Leading Norwegian Telco 	Locations: Telecom Operations Centers in: <ul style="list-style-type: none"> • Belgium • India • UK • Uruguay • US 	<ul style="list-style-type: none"> • <i>HOBBS</i>: In-house cloud-based OSS/BSS solution • <i>Victory iRAS</i>: In-house revenue assurance platform • <i>CDM</i>: In-house connected device management solution • <i>Field Force Management System</i>: In-house solution for managing the field force • <i>TRAPEZE™</i>: A set of methodologies and tools that help deliver to customer specifications dynamically



About the Author



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Overview

- More than 10 years' business experience in buy side, advisory, and delivery in the global outsourcing industry across the US, Europe, and Asia.
- Coverage areas in HfS are telecom operations, engineering services, supply chain, pricing, service provider analysis, locations, and offshore markets.
- Author of the book *Who Is That Lady?*
- A strategist, researcher, innovator, and writer.

Previous Experience

- Business Planning Manager (Asia Pacific), Emerson Network Power
- Manager, Outsourcing Advisory, neIT
- Software Engineer, Geometric Global

Education

- MBA, Indian Institute Of Management (IIM), Bangalore, India
- B. Tech, Indian Institute Of Technology (IIT), Delhi, India

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[HfS Research](#) is the leading independent analyst authority and community for the global business services and outsourcing industry. HfS serves the research, governance and strategy needs of business operations and IT leaders across finance, supply chain, human resources, marketing, and core industry functions. The firm provides insightful and meaningful analyst coverage of the best business practices and innovations that impact successful business outcomes, namely talent development, process automation and outsourcing, global business services frameworks, mobility, analytics and social collaboration. HfS applies its acclaimed crowdsourced Blueprint Methodology™ to evaluate the performance of service providers in terms of innovating and then executing against those business outcomes.

In addition to researching business operations strategies and their technology enablement, HfS educates and facilitates discussions among the world's largest knowledge community of enterprise services professionals, currently comprising 145,000 subscribers. HfS Research facilitates the [HfS Sourcing Executive Council](#), the acclaimed elite group of sourcing practitioners from leading organizations that meets bi-annually to share the future direction of the global services industry and to discuss the future enterprise operations framework. HfS provides sourcing executive council members with the HfS Governance Academy and Certification Program to help its clients improve the governance of their global business services and vendor relationships.

In 2013, HfS was named first in rising influence among leading analyst firms, according to the 2013 Analyst Value Survey, and second out of the 44 leading industry analyst firms in the 2013 Analyst Value Index. In 2010 and 2011, HfS was named “Analyst of the Year” by the International Institute of Analyst Relations (IIAR), the premier body of analyst-facing professionals and achieved the distinctive award of being voted the research analyst industry's Most Innovative Analyst Firm in 2012.

Now in its seventh year of publication, HfS Research’s acclaimed blog “[Horses for Sources](#)” is widely recognized as the leading destination for unfettered collective insight, research and open debate about sourcing industry issues and developments.

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