Plugging Resource Gap through Open Innovation by an Emerging Economy Multinational

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Emerging economy multinationals (EEMs) operate under various technology and management knowhow constraints. This is a case study of an EEM, originating from a country having low to medium income generating ability, with higher economic growth momentum compared to developed economy multinationals. It studies resource and capability gaps of the EEM and how it has been able to plug these gaps. It looks at drivers such as customer centricity that help it focus on relevant technologies and markets, absorptive capacity that enables it to acquire knowledge related to new technologies, its alliance partners and delivery excellence that provide sustained competitive advantage.

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Emerging Economy Multinationals

Countries referred to as emerging economies are characterized by their low to medium income generating ability with relatively higher economic growth momentum as compared to the developed economies. The higher growth momentum is usually attributed to the emerging economy governments taking policy decisions that encourage free-market system by opening-up the economy for foreign direct investments (FDIs). Such policy changes have had immediate shocks as well as long term implications for both the domestic as well as foreign firms/investors because of the changing competitive landscape. Firms operating under such frequently changing economic conditions have to deal with the associated uncertainty and risk while taking strategic decisions. Apart from the policy / political instability, the firms operating in or out of emerging economies have to deal with issues related to shortage of skilled labor, underdeveloped capital markets, lack of necessary infrastructure, policy implementation issues etc, in varying degrees. These challenges coupled with negative public sentiment associated

with foreign firms derail the FDI in-flow to emerging economies. Though FDI inflows are the primary objectives of liberalization of emerging economies, it has also caused out-flow of funds from these economies.

Acquisition of new resources and capabilities is the primary reason for EEMs entering developed markets.

The outflow of funds from emerging economies to developed or other developing countries, driven by the aspirations of domestic firms to become global players to compete with the multinationals from developed countries, has given rise to many emerging economy multinationals (EEMs). While EEMs entering other developing countries / markets sounds more logical, it has been of interest to study the ones entering the developed countries and successfully competing with multinationals based out of developed economies in their terrain. Some studies have identified acquisition of new resources and capabilities as the primary reasons for EEMs entering developed markets for them to be able to better compete with developed economy multinationals both in domestic as well as foreign markets. EEMs often enter developed markets to explore as they do not possess much from their domestic experience that can be exploited enough or as-is to gain competitive advantage over competitors from developed countries. Successful exploration(s) help EEMs develop absorptive capacity that gives them competitive edge over their rivals in the long run.

Unlike their counterparts from the developed economies, the EEMs do not possess the sophisticated technological and marketing skills / knowhow that are deemed essential for business success in developed markets. Hence, it becomes very much essential for them to develop absorptive capacity as quickly as possible in order to compete. The EEMs are known to expand globally through entry modes ranging from forging pure alliances to minor/majority stake joint ventures to going it all alone through fully owned subsidiaries. Studies have revealed that EEMs are different from the developed country multinationals in terms of their relatively faster international expansions through simultaneous entry into developed and developing countries primarily through alliances and acquisitions, weaker competitive advantages, stronger political capabilities, and better organizational adaptability in general. While the EEMs are better at imitating their competitors from the developed countries, they also innovate on business model front in the context of the customer segment they target. An EEM's origin from an emerging economy makes it capable of working in challenging and uncertain environments that help them adapt to new circumstances when required in the international markets.

Some of the EEMs, e.g. from BRIC nations, have global reach and scale that are quite challenging to achieve given their origins. Vale, Gerdau and Embraer

are the well-known examples of EEMs based out of Brazil. Lukoil, Gazprom, and Severstal are from Russia. TCS, Infosys, Wipro, Hindalco, Tata Steel, Tata Global Beverages, Sun Pharma are examples from India. Haier, Lenovo, Huawei are some of the well-known EEMs from China.

Resources & Capabilities Gaps of IT Companies

EEMs, because of their background, operate under constraints typically associated with emerging economies in contrast to the multinationals from developed countries. The EEMs are usually late entrants to most of the developed markets necessitating them to catch up a lot on competition front before being able to play level field with the incumbents. The EEMs are prone to participate in low/mid-tech industries because of the technology knowhow constraints they have had in the past. The multinationals from developed countries, on the other hand, have access to advanced and proprietary technology combined with powerful global brands and marketing ability. Just having access to cheap labor in their home countries does not necessarily make EEMs globally competitive as they need to overcome the burden of making this cheap labor productive as per global standards in order for them to compete globally with added constraints of limited infrastructure at their home countries. EEMs face similar challenges on the intangible assets front such as effective knowledge management, especially when they increase their scale of operation.

Given the technology constraints that EEMs have to operate with, it is interesting to look at how they have fared on high-tech industry. Though there are global giants like IBM, Microsoft, Google, and Apple among others, mostly from developed countries, there are EEMs like Lenovo, Huawei, Acer, TCS, Infosys, etc, that are competing head-on (though in selective areas) with some of these or other giants globally. While the EEMs from China have established themselves well in the computer / mobile hardware industry, the ones originating from India have done well on the IT / IT enabled services front globally. Most of these EEMs started with low-cost strategy because of access to low-cost and semi-skilled labor in their home countries. This low-cost business model strategy was not of advantage for long as the developed country multinationals started globalizing their production, and later their R&D activities, in emerging economies (Lij,Kozhikode, 2009). By the time the competitors caught up on cost advantage, these EEMs had started moving up the value chain by differentiating their offerings mainly because of accelerated innovation through implementation of open innovation model to source innovations from outside the firm (Chesbrough, 2003). Open innovation thought shows the way for MNCs to look outside of the firm as well as country boundaries for knowledge creation. (Chesbrough, 2003, Chesbrough & Appleyard, 2007).

Apart from relevant technology related innovation, the Indian IT services EEMs in high tech industry used strategic acquisitions, partnerships, and / or global

Indian IT services EEMs in high tech industry used strategic acquisitions, partnerships, and / or global alliances to close the gap on capabilities front.

alliances to close the gap on capabilities front. While the EEMs from China have done some high profile acquisitions, for example, Lenovo acquiring IBM's PC division and Google's Motorola Mobility smart phone business, the services firms from India have stayed away from large acquisitions though they have continuously upgraded their products / services portfolio with acquisitions that were smaller in size but of strategic importance either for the market they are operating or for their global offerings. Indian IT services EEMs that initially lacked IP portfolio and market power to push their own brands have used acquisitions to close the resource gap selectively. To remain flexible, as required by the frequently changing technology landscape of the industry they operate, IT services EEMs have primarily used strategic alliances and partnerships with the technology leaders of the time with the ability to leverage these relationships for their and their customers' benefit to the possible extent. They also invested in process front to improve quality of their products / deliverables.

Plugging Resource Gap through Open Innovation

During FY2014, TCS was in the news for crossing Accenture in market capital for the first time thereby becoming the world's second most valuable IT services company after IBM. It also got into the list of global top 10 in terms of annual revenue earned from pure IT services business, published by HfS Research in Apr 2014. It reported close to 30% annual growth in revenue with operating margin at 29.1% that year in local currency (INR) terms. TCS' consistent higher growth momentum at high profit margins is reflected in its much higher market valuation compared to its global peers.

Table 1 10 Top Global IT Services Rankings 2013

Rank	Service Provider	Estimated 2013 Revenue ($bn)	Market Share (%)	Estimated Profit Margin (%)
1	IBM	54.4	8.6	17.9
2	Fujitsu	32.1	5.1	5.9
3	HP	29.2	4.6	2.8
4	Accenture	25.4	4.0	15.3
5	NTT Data	16.7	2.6	4.7
6	SAP	15.4	2.4	N/A
7	Oracle	13.5	2.1	N/A
8	Capgemini	13.4	2.1	8.3
9	CSC	12.4	2.0	8.9
10	TCS	10.5	1.7	28.4

Source: http://www.horsesforsources.com/tcs-breaks-hfs-it-services-top-ten_041314

Among the Indian IT services EEMs, TCS has been a leader in terms of both revenue growth and profit margins. It employs more than 300,000 professionals from 118 nationalities operating out of 46 countries speaking more than 100 languages, though majority of them are in or from India. After keeping a low profile for years in terms of branding and market visibility since its inception in 1968, TCS embarked on the journey of building and marketing its brand through an aggressive marketing campaign with "experience certainty" message around 4 years after it went public in Aug 2004. The FY2014 annual report of TCS highlighted increase in overall brand value to US$ 8.2 billion consolidating its "Big 4" position in the IT services category with strongest brand rating of AA+ in the industry by Brand Finance Global 500 Study 2014. It also reported its sustained commitment to highest levels of quality by going through enterprise-wide assessment at the highest maturity level 5 for CMMI-DEV® and CMMI-SVC® versions 1.3 along with relevant ISO certification assessments in that year.

Though based out of India, its earning from domestic market for the financial year 2014 was only ~6.7%, with rest of the earnings coming from abroad. As can be seen from Table 2, TCS has been focusing on all kinds of markets with scope ranging from developing to emerging and developed markets. Table 3 shows its revenue growth in each market it serves over the past 9 years.

TCS has a broad portfolio of industry segments that it serves including

Table 2 Sources of TCS Revenue as Percent of Total Revenue by Market

	FY2015	FY2014	FY2013	FY2012	FY2011	FY2010	FY2009	FY2008	FY2007	FY2006	FY2005
North America	51.86	53.03	52.73	53.31	53.87	52.80	51.38	50.77	52.43	57.06	57.22
United Kingdom	16.68	17.42	17.08	15.24	15.46	16.18	18.99	19.78	20.29	15.52	16.30
Europe	11.57	11.22	9.49	10.08	9.32	10.49	10.53	9.21	8.19	6.91	6.80
Asia Pacific	9.33	7.22	7.46	7.56	6.58	5.24	4.75	5.20	4.78	4.11	4.00
India	6.45	6.71	7.76	8.59	9.20	8.65	7.85	8.95	9.00	12.49	12.20
Latin America	2.08	2.29	3.35	3.08	3.62	4.72	4.71	4.40	3.85	1.98	1.98
MidEast& Africa	2.03	2.10	2.13	2.13	1.95	1.92	1.79	1.69	1.46	1.93	1.5
Total	100	100	100	100	100	100	100	100	100	100	100

Source: TCS Annual Reports from Financial Years 2005 to 2014

Table 3 TCS Revenue Growth (Percent)by Market

->	FY2015	FY2014	FY2013	FY2012	FY2011	FY2010	FY2009	FY2008	FY2007	FY2006
North America	13.14	28.15	27.44	29.62	26.81	10.95	25.47	19.54	29.91	35.87
United Kingdom	10.75	32.44	44.34	29.16	18.76	-8.01	17.28	20.35	84.84	29.74
Europe	19.22	51.69	21.26	41.62	10.43	7.56	39.52	38.82	67.57	38.46
Asia Pacific	49.48	25.75	27.06	50.67	56.08	19.11	10.83	34.30	64.43	40.00
India	11.29	12.22	16.37	22.34	32.20	18.97	6.77	22.76	1.88	39.49
Latin America	5.02	34.52	40.29	11.52	-4.67	8.20	30.14	41.08	174.91	36.26
MidEast & Africa	11.86	28.43	28.44	43.38	26.24	15.81	29.47	42.90	6.95	75.32
Total	15.69	29.88	28.83	31	24.30	7.97	22.96	23.45	41.38	36.26

Source: TCS Annual Reports from Financial Years 2005 to 2014

Table 4 Sources of TCS Revenue as Percent of Total Revenue by Business Domain

	FY2015	FY2014	FY2013	FY2012	FY2011	FY2010	FY2009	FY2008	FY2007	FY2006	FY2005
BFSI	40.74	42.92	43.1	43.08	44.3	44.9	42.3	43.6	42.2	41.2	38.4
Telecom	11.55	11.75	11.97	12.69	12.1	12.7	14.4	16.2	17	15.1	16.4
Media and Entertainment					2.1	1.9	1.9	1.5			
Retail & Distribution	13.55	13.82	13.34	12.18	11	10.6	10.3	7.7	7.1	6.5	6.8
Manufacturing	9.77	8.5	8.28	7.77	7.4	8.1	10.5	9.6	15.3	17.2	19.3
Hi-Tech	5.8	5.38	5.85	5.89	4.9	4.2	6.5	6.9			
Life Sciences and Health Care	6.4	5.82	5.22	5.27	5.2	5.1	5.2	5.5	4.3	4.6	4.0
Travel and Hospitality	3.5	3.43	3.54	3.75	3.4	3.2	4.1	4.3	3.2	3.6	4.2
Energy and Utility	4.1	3.8	3.72	4.01	4.2	2.9	2.8	2.7	2.4	2.5	3.0
Others	4.6	4.54	4.98	5.35	5.4	6.4	2.0	2.0	8.5	9.3	7.9
Total	100	100	100	100	100	100	100	100	100	100	100

Source: TCS Annual Reports from Financial Years 2005 to 2014

Table 5 TCS Revenue Growth(Percent)by Business Domain

	FY2015	FY2014	FY2013	FY2012	FY2011	FY2010	FY2009	FY2008	FY2007	FY2006
BFSI	9.83	29.35	28.89	27.44	22.52	13.08	18.21	23.06	59.44	51.44
Telecom	13.73	27.51	21.52	17.24	21.25	-2.84	21.81	22.79	53.29	37.71
Media and Entertainment					39.8	-	-	-	-	-
Retail & Distribution	13.44	34.61	41.09	45.05	29.03	28.32	67.95	33.94	66.21	17.55
Manufacturing	32.24	34.01	37.23	37.27	13.06	-10.55	21.2	-5.51	12.18	27.9
Hi-Tech	24.36	19.52	27.84	57.32	43.7	-	-	-	-	-
Life Sciences and Health Care	27.74	44.96	27.4	33.1	26.8	-	-	-	-	-
Travel and	18.7	25.7	21.51	43.85	33.3	-	-	-	-	-
Energy and Utility	25.08	32.46	19.26	25.28	79.5	-	-	-	-	-
Others	-	27.9	-	37.27	-	-	-	-	-	-
Total	29.88	29.88	28.82	31	24.3	2.86	23	22	34.2	38.9

Source: TCS Annual Reports from Financial Years 2005 to 2014

banking and financial services, insurance, manufacturing, retail and consumer packaged goods, telecom, media and entertainment, life sciences and health care, high-tech, energy, resources and utilities, travel, transportation and hospitality, and others, each requiring different domain competencies and hence resources. As can be seen from Tables 4& 5, TCS is able to grow across the domain.

TCS caters to a range of IT and IT enabled services, ranging from basic application development & maintenance (ADM) to more specialized assurance, enterprise solutions, and business intelligence services to high end consulting services. As is clear from Tables 6 and 7, it is using non-ADM services as its growth engines while still earning substantial chunk of its revenue from ADM.

TCS' has the ability to not only add significant number of new customers but also significant upward movement in revenue band.

It continues to add customers at various revenue bands, as depicted in Table 8. This shows TCS' ability to not only add significant number of new customers but also significant upward movement in revenue band. This means TCS is able to add both breadth and depth to its relationship through understanding customer's needs and offering relevant solutions at different revenue bands. Its track record of earning 97+% of revenue from repeat busi-

Table 6 Sources of TCS Revenue as Percent of Total Revenue by Service Line

	FY2015	FY2014	FY2013	FY2012	FY2011	FY2010	FY2009	FY2008	FY2007	FY2006	FY2005
ADM	40.21	41.58	42.8	44.75	46.5	48.7	48.5	48.3	52.2	58.2	72.9
Business Intelligence	15.57	15.49	15.2	4.55	5.3	5.7	8.1	9.7	9.5	8.5	
Enterprise Solutions				11.11	10.1	10.5	12.6	13.1	12.2	13.8	21.82
Assurance Services	8.51	8.39	7.71	7.45	6.8	5.0	4.3	3.8	2.3	1.5	
Engineering & Industrial Services	4.52	4.7	4.61	4.62	4.8	5.0	6.0	5.4	5.8	6.6	
Infrastructure Services	13.84	11.93	11.48	10.06	9.4	8.4	8.0	6.5	6.0	4.4	
Global Consulting	3.31	3.37	3.03	2.58	2.2	1.9	2.7	3.4	3.4	2.9	
Asset Leverage Solutions	2.36	2.52	2.7	3.84	3.6	3.3	2.9	3.6	2.8	2.7	2.64
BPO	11.68	12.02	12.47	11.04	11.3	11.5	6.9	6.2	5.8	1.4	
Others											2.64
Total	100	100	100	100	100	100	100	100	100	100	100

Source: TCS Annual Reports from Financial Years 2005 to 2014

ness every year shows the willingness of customers to keep coming to TCS for their IT and business process related service needs.

In FY 2014, around 52% of its client engagements were through fixed price contracts, while the remaining 48% were through time & material contracts. Though it has setup multiple delivery centers outside India at mid-cost locations to serve its customers called Global Delivery Centers (GDCs), in FY2014 the GDCs contributed only ~5.4% towards its total earnings. (Low cost) Indian delivery centers contributed ~48% of total earnings with the rest ~46.7% coming from services delivered locally(mostly high-cost locations) at the countries / markets it serves.

Brief History

Established in 1968 as a Tata Sons division, TCS started as a consulting company for the Tata group of companies helping them improve business processes. It quickly entered into IT services business by providing system automation and bulk processing services to businesses and government(s) in

Table 7 TCS Revenue Growth (Percent) by Service Line

	FY2015	FY2014	FY2013	FY2012	FY2011	FY2010	FY2009	FY2008
ADM	11.88	26.17	23.22	26.17	18.51	8.54	24.39	11.11
Business Intelligence	16.3	32.32	25.06	12.31	15.91	-23.76	1.68	24.28
Enterprise Solutions				43.46	20.35	-9.5	16.07	31.32
Assurance Services	17.29	41.34	33.29	44.01	67.2	28.88	34.32	103.26
Engineering & Industrial Services	11.04	32.53	28.6	26.03	19.8	-9.72	36.72	11.81
Infrastructure Services	34.12	35.05	46.97	39.96	39.93	13.26	48.66	33.1
Global Consulting	14.72	43.84	51.49	55.46	41.37	-22.46	-5.5	23.15
Asset Leverage Solutions	8.33	21.3	-9.51	38.08	37.86	22.28	1.38	52.39
BPO	12.35	25.26	45.53	28.28	21.58	71.59	41.64	31.37
Total	15.69	29.88	28.83	31	24.3	2.86	23	22

Table 8 Customer Bands

	FY15	FY14	FY13	FY12	FY11	FY10	FY09	FY08	FY07	FY06	FY05
US$ 1 mln+ Clients	791	714	556	522	458	409	405	358	297	256	214
US$ 5 mln+ Clients	389	354	277	245	208	183	172	143	119	96	76
US$ 10 mln+ Clients	261	231	196	170	143	118	111	100	75	54	42
US$ 20 mln+ Clients	162	136	115	99	81	63	62	56	39	31	25
US$ 50 mln+ Clients	68	53	48	43	27	23	24	19	14	9	5
US$ 100 mln+ Clients	29	24	16	14	8	7	7	7	3		

Source: TCS Annual Reports from Financial Years 2005 to 2014

India mainly on IBM mainframe platform. In 1970s, it forged an alliance with Burroughs to market and sell its computers in India, which later turned out to generate more revenue for TCS writing software for those machines than selling the hardware as Burroughs referred many Indian as well as few foreign clients to TCS for software services while TCS developed software writing skills internally on those machines. It recognized its ability to learn quickly and business domain experience as its strengths and continued to build on those. It started recruiting graduates from the premium Indian technology institutes like Indian Institute of Science& Indian Institutes of Technology, and trained them through its formal training program that would later be replicated by others. In late 1970s TCS stuck to its decision to stay away from hardware business by rejecting an offer from Burroughs to manufacture its computers in India. In 1970s, it also started operations overseas in developed economies like US and Europe. These overseas engagements were used to send its consultants overseas where they would get exposure to new technologies while working on selective assignments and would later train others in India on their return thereby expanding the knowledge base and technical competency internally across locations.TCS forged alliances / partnerships abroad relevant for the market it entered.

In 1981, TCS setup India's first dedicated software and process engineering research center TRDDC in Pune. Later, in 1980s it established India's first dedicated offshore development center (ODC) for its client Tandem. It also invested in developing software migration and project management related technologies/competencies in-house that helped it bag software migration projects because of the technical knowhow advantage over its Indian competitors and lower cost advantage over its competitors from the developed countries. TCS later executed software migration projects in factory mode that allowed it to move part of the migration work to offshore where it could perform the same job at much lower cost.

By early 1990s, TCS's focus on technology and to some extent process excellence helped it getting into the traditional stronghold of large multinational IT services competitors by entering into multiyear multimillion dollar contracts. Later part of 1990s brought tremendous amount of business opportunities for TCS and its Indian peers in the form of Year 2000 (Y2K) problem that needed time bound remediation of large amount of software code written over decades around the world for the computer systems to work after the turn of the century. To tackle this challenge, TCS built assembly line solution approach by leveraging and enhancing proprietary tools developed in its research center.

By early 2000s, though TCS remained a leader in terms of revenue growth among its Indian peers, it lacked the market attention and visibility that it deserved as it continued to remain a private player compared to its closest Indian rival Infosys that had by then built a strong brand and reputation in the global

market and was publicly listed in Indian as well as in US markets. TCS is the first Indian IT services EEM to open delivery centers outside India that it later marketed under Global Network Delivery Model (GNDM)™. In Aug 2004, TCS went public by listing on Indian bourses with the IPO communication centered on the message 'TCS - Truly Global' aiming to unlock a lot of its hidden wealth especially in terms of brand. Apart from opening delivery centers globally, TCS also took its research and innovation effort global by setting up Technology Labs, Domain Labs, and Academic Alliance Labs under the umbrella of TCS Innovation Labs. TCS, unlike its closest Indian rival Infosys, has not shied away from making acquisitions, though of smaller sizes. Its acquisitions were both domestic as well as global in nature. Whereas its majority stake in the then government controlled CMC was aimed at Indian domestic market, other acquisitions such as life and pension outsourcing business from Pearl Group in UK and eServe business from Citigroup Global Services Limited were of global importance. Through the investments in research labs, alliances, partnerships, and acquisitions globally, TCS expanded its offerings into cloud, mobility, big data, banking and insurance products, and the high-end business process related services. As during the starting time, its current management continues to avoid getting into areas that require large capital expenditure commitment focusing mainly on services and few product platforms around which it can continue expanding its services portfolio.

Alliances & Partnerships

As evident from the brief background on TCS, since its origin it has been able to build alliances and partnerships with technology leaders of different era and has been able to successfully leverage these for its business benefit. Its alliance framework today consists of strategic and solution partnerships that compensates for the technology knowhow gap usually faced by EEMs. Partnering has proven to be a powerful business tool for the high tech industry EEMs like TCS that deal with ever-changing technology landscape and customer needs without significant investments. The business risk of technology change is shared with the partners.TCS' strategic partnership list includes technology majors like IBM, Google, Microsoft, Oracle, SAP, and others that help it gain competitive advantage for its ability to bring together technology partners as fast as possible when the situation demands. The solution partnership list includes niche technology players like Adobe, Informatica, Pegasystems, Salesforce.com, and others that help it gain competitive advantage when their niche technology knowhow is required for solutions. The strength of these partnerships determines how well the involved partners leverage it for their business benefit. Building, managing and sustaining these relation-

TCS uses these alliance partnerships to learn and upgrade its technology skills in order to remain competitive in the industry it operates.

ships over time based on the technology trends is key to the success of an EEM like TCS that otherwise lacks the technology knowhow. As done during the alliance with Burroughs, TCS uses these alliance partnerships to learn and upgrade its technology skills in order to remain competitive in the industry it operates.

Acquisitions

The Indian IT services EEMs have always had a lot of cash at their disposal that could be used for acquisitions if needed. TCS's Indian rival Infosys, for example, had cash reserves to the tune of US$ 5 billion by the end of FY2014. Unlike Indian EEMs from other industries, the IT services EEMs have been able to grow mostly organically to the tune of ~20-30% every year (except for the recession period) thereby avoiding any big mergers or acquisitions. TCS is no exception, though it has gone for some strategic acquisitions of small sizes to broaden its service offerings portfolio or to gain access to specific markets where it was not satisfied with its market reach. In 2001, TCS acquired a majority stake in CMC that was then controlled by the Government of India mainly to gain access to its domestic capabilities and market. It chose to let CMC operate separately until very recently when it announced integrating its operations with rest of TCS. Timing of the integration announcement may be linked to the recent optimism over Indian economy along with the Digital India Initiative of the Central Government as it is expected to boost IT spending in the domestic market.

TCS expanded its services portfolio from pure IT services to IT enabled services such as business and knowledge process services (BPO/KPO) because of cross selling opportunities between the two. It decided to become a global player in the higher end of this space to avoid getting into low margin call-center based services in general. In order to strengthen its position as a global player in high-end BPO space, it acquired companies like Airline Financial Support Services (AFS), Phoenix Global Solutions in insurance domain, Comicrom in Latin America banking BPO space, Citigroup Global Services' eServe in banking and financial services domain, Supervalu Services in retail domain during the first decade of this century. Each of these acquisitions added a broad range of domain capabilities along with customer engagements that it otherwise would have taken much longer time to acquire. Most of these acquisitions were India or emerging economies centric in the sense that the delivery centers were based out of low cost locations and the deal sizes ranged from a few million to 500 million US$. Different from these was the acquisitions of life and pension outsourcing business from Pearl Group in the UK that brought in the domain knowledge of life and pension underwriting business which it later combined with the platform it built in-house to serve multiple customers in insurance domain in UK. TCS' market specific acquisitions include Swedish Indian IT Resources AM (SITAR) that allowed it access to some of the blue-chip European customers like Ericsson, IKEA, Vattenfall and Hutchison, Alti that gave it access to some of the blue-chip clients

mainly in France. TCS consolidated and enhanced its products offering in banking domain by acquiring a core banking product in Australia and TKS-Teknosoft in Switzerland, both from its earlier partners. In 2012, it acquired Computational Research Lab in India to add capabilities in high performance computing (super computers) and cloud services area.

Open Innovation (COIN™ Network)

Though TCS had setup software and process engineering research center back in 1981, its research effort was mostly India based for around 3 decades. Between 2000 and 2005, it expanded its research facilities within as well as outside India. TCS opened multiple Innovation Labs in India, US & UK, forged academic alliances across the globe with premier technology institutes / universities in different research areas. Later in 2007 it came up with innovation management framework named TCS Co-Innovation Network (COIN)™ that takes a holistic view of the innovation activities across the organization ecosystem. Centered around Customers' requirements, the COIN™ encompasses activities in its innovation labs spread across geographies, other research and academic institutes including student community, Startups and venture capitalists, industry bodies and entrepreneurs, its alliance partners & consultants, and last but not the least, its own clients. COIN™ is a true open innovation framework that leverages shared synergies of internal and external expertise. TCS encourages its researchers to publish and participate in world class conferences/seminars in their area of research.

By the end of FY2014, TCS has filed 1746 patent applications, out of which 114 were granted by then. TCS was placed 40th on Forbes' most innovative companies list that year. In comparison, it had 100 patent applications and 37 granted patents by financial year 2007-2008, the year it formalized COIN™ framework. Its innovation expenditure to sales ratio for the financial year 2014 remained 1.6%.Though quite low as compared to its competitors from the developed world it is much more in comparison to its paltry 0.22% expenditure in financial year 2008. A formal framework such as COIN™ has definitely brought the rigor in innovation activities that a global player requires with the flexibility of not investing a significant portion of its revenue in rapidly changing technical environment.

Value to Customers

Because of its global alliance partners and innovation network combined with its service delivery excellence, TCS is in a unique position to bring value to its customers by bringing in relevant expertise needed to solve client specific problems by serving them with the right mix of low-medium-high cost location(s) around the globe. In a high-tech services industry, the service provider needs to be flexible enough to cater to the varied requirements of same and different custom-

TCS is in a unique position to bring value to its customers.

ers. Majority of enterprises, typically TCS' customers, today run their IT on platforms involving multiple technologies ranging from the legacy mainframe to client-server to web and mobile/digital. In order to add value, an IT services company not only needs to keep abreast with latest technology, but also have competency with skills on legacy platforms/ technologies that are difficult to find in the market. Adding to the complexity is business domain aspect that's essential to deliver value added services in the context of customer's industry. With its customer centric strategy, as a service provider, TCS focuses on understanding the challenges faced by its customers in running and changing their IT systems so that it can help them address those challenges through the right scale and mix of technology and domain expertise from the right location(s) at the right price. Its strategic and solution alliances help it balance the expertise level that it needs to maintain internally vs. that it can leverage from outside on a need basis. Its open innovation network strategy and small strategic acquisitions helps it build and acquire competency and solutions in reduced timeframe that ultimately helps it coming up with value added and differentiated offerings for the customer segment it is targeting in the ever changing market dynamics.

Customer Centricity

As defined in book "Customer Centricity: Focus on the Right Customers for Strategic Advantage, Second Edition" by Peter Fader, Customer Centricity is a strategy that aligns a company's development and delivery of its products and services with the current and future needs of a select set of customers in order to maximize their long-term financial value to the firm. TCS continuously focuses on the right customers for strategic advantages at times saying no to business that it believes does not align with its strategic objectives. TCS, along with other Indian IT Services EEMs, has been consistently growing its revenue base without compromising on the profit margins over decades. These EEMs usually operate at 20+% profit margins and annual growths in revenue, barring exceptions such as 2008-2012 recession period. TCS continuously aligns its products and services offerings portfolio based on the costumers it deems valuable as per its strategic advantage. It strives to become strategic IT services vendor partner for the customers it serves, thereby remaining flexible in terms of specializing its products and services offerings for the most valuable customers. It helps TCS focus on the opportunities that are of strategic importance and remain competitive over long run in today's challenging business environment. There are different ways / means to customer centricity, out of which TCS has used GNDM™, COIN™ framework, rich and broad portfolio of services, and delivery excellence to remain close to its customers and their requirements. In 2008, TCS went through a major reorganization process to better align its organization structure with the industry and customers it serves by creating industry solution units (ISUs) each with operating independence, to stay focused and flexible with respect to their customers' needs, and to prepare as an

organization that can scale up its operations for future growth.

Take Away

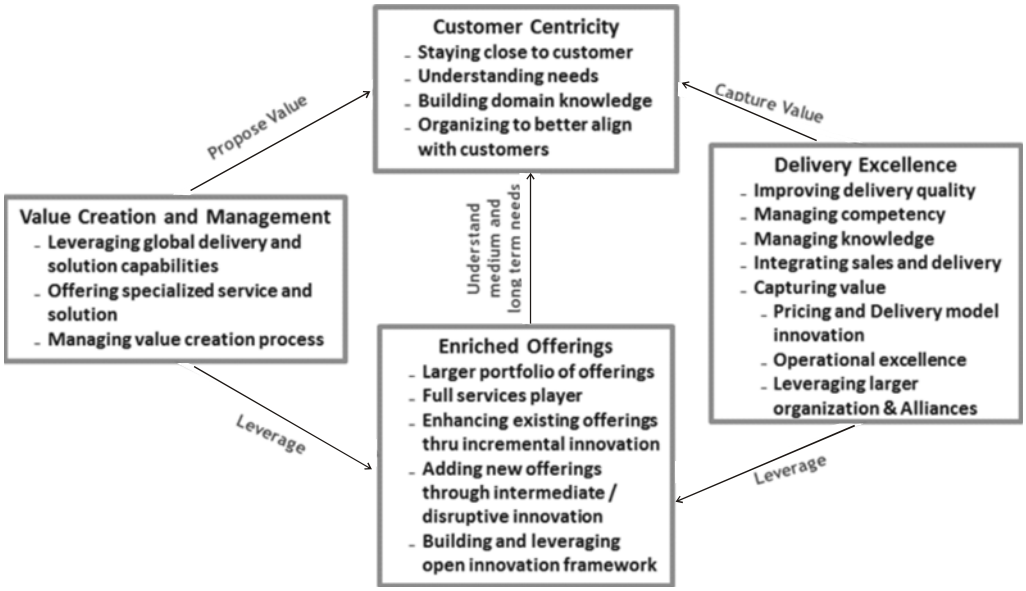
By studying an EEM like TCS which is a global leader in the industry segment it operates, we can have some insights on how open innovation can help close resource gaps that EEMs have to deal with while giving them the necessary flexibility of changing course of action in case of changing market and technology scenarios without being adversely affected by the change. While the strategy adopted by TCS is specific to its context, there is scope for replicating an abstracted version of it in the context of IT Services EEMs and open innovation led strategy context. Based on the insights from this case study and the literature review on EEMs and open innovation areas, we propose key elements of a model that needs to be validated for replication in the context of EEMs discussed in this paper.

- *Customer Centricity:* Staying close to customers and continuously looking for new ways to strengthen customer relationships to understand customer needs from their perspective. Investing in building domain knowledge of the industry in which customers operate. Setting up organizational structure and customer facing processes to facilitate effective customer engagement at all levels in customer organization.
- *Enriched Offerings:* Having larger portfolio of offerings and being a full services player in the industry. Continuously enhancing service offerings to meet continuously evolving needs in the customer industry and strengthening new service offerings till they mature. Innovating for immediate, intermediate, and long term through tools / automation / process innovation, solution platforms/ frameworks, and R&D effort respectively. Building and leveraging an open innovation ecosystem with external entities such as alliance partners, industry bodies, academic and research institutions, start-ups and venture capitalists.
- *Value Creation and Management:* Bringing in the right mix of skills / expertise at the right time and price to propose and deliver right solution for the customer needs, thereby increasing the willingness to pay for customers. Being flexible to offer specialized services and solutions to meet distinct customer needs. Managing value creation process for a customer through appropriate governance structure and process at engagement and relationship level, thereby increasing the proportion of repeat business.
- *Delivery Excellence:* Continuously improving service delivery quality across global locations. Continuously managing competency across the organization to stay ahead of the changing technology and domain requirements. Managing knowledge from creation to dissemination across the organization for effective delivery. Effectively integrating sales and delivery functions to ensure delivering

what was promised and also selling what can be delivered. Capturing value through building capability to deliver at right price through innovations in pricing and delivery models, operational excellence, and leveraging larger organization along with alliance partners.

Fig. 1 captures the value creation and activities through leveraging offerings portfolio centered at varying needs of its customers.

Fig. 1 TCS Value Creation Model



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