Infosys Technologies Limited: Unleashing CIMBA

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EXECUTIVE SUMMARY

Infosys Technologies Limited, one of the world's most profitable IT services company, implemented a customer relationship management (CRM) system called CIMBAâCustomer Information Management By All. This customer-focused system was conceived and designed to improve communication and collaboration between the company and its customers. By seamlessly integrating the front-end sales system with the back-end delivery system, CIMBA was expected to further enhance the company's IT solutions delivery capability. This case provides insights into the factors that triggered the need for developing such an integrated CRM solution and how the company went about developing and launching this system. It also brings to light the various challenges associated with the implementation of this IS solution.

BACKGROUND

There was a lot on Nitin's mind as he came out of yet another marathon meeting, a meeting to discuss problems the Infosys sales team was facing with the current customer relationship management (CRM) solution. As the head of the Sales & Marketing Group in the Information Systems Department, Nitin Gupta was responsible for the software support needs of Infosys' sales teams.

Only two years ago, he along with a team of four, had deployed a CRM package called CRMX, for meeting the contact management and opportunity tracking needs of the sales team. The disappointing performance of CRMX had been the reason for this and numerous earlier meetings.

At the time it was implemented, CRMX, a sales force automation (SFA) tool, marked the first automation attempt by Infosys in the area of customer relationship management. One of the primary objectives was to establish a centralized repository for the contact database of the enterprise and help the sales teams target potential customers. Another major objective was to improve responsiveness to customer needs by enabling seamless sharing of information between the onsite sales team and offshore delivery teams. Thus, the system was expected to provide synergistic benefits by facilitating communication and knowledge sharing during every stage of the order generation and fulfillment process. The system was also expected to be easily scalable to meet the growing information needs of the company.

Though CRMX was a good and robust tool, it was not meeting Infosys' expectations, especially those of the sales people. The business development managers (BDMs), who were supposed to be the key users of CRMX, found it difficult and cumbersome to use. Moreover, it did not enable real-time sharing of information between the onsite (at customer locations) sales personnel and offshore delivery personnel. Phone, fax, and e-mail continued to be the primary means of communication and information exchange for the personnel located at client offices and sales offices in different parts of the world. As a result, these sales personnel operating from remote locations felt disconnected and isolated and often called themselves the lone warriors.
Nitin, a graduate of one of India's premier business schools, was a smart young man, who fully understood the changing business needs of his company in a rapidly growing software consultancy market. A multitude of ideas ran through his mind. He knew something more scalable and dynamic was needed and that Infosys had to do away with the current tool, once and for all. Infosys had done enough performance tuning of the system to realize the futility of any further performance enhancement exercise. Sivashankar, the IS Head at Infosys and Basab Pradhan, the Regional Manager for the Chicago office, both key players in the technology initiatives for the sales team, were also very keen on a new system. Like Nitin, they were convinced that CRMX had outlived its usefulness.

Company History and Growth

Infosys Technologies Ltd. was founded in 1981 by seven engineers working for Patni Computers, a small reseller of U.S.-based Data General. Its aim was to be a key player in the software solutions market. Narayana NR Murthy, the CEO and founder of the company, was a visionary, who could see the potential in the still infantile software solutions market—a market in which Infosys built its reputation by not only providing high-quality solutions at low cost, but also by reducing customer risk through effective execution of fixed-time and fixed-price contracts.

The first employees were hired in 1982 and the company started by offering onsite services to foreign customers. It quickly built a reputation as a provider of quality turnkey software development and maintenance services (Appendix 1). The client list grew and included many major firms across the globe. To expand its customer base in the U.S., Infosys also entered into a strategic marketing alliance with Kurt Salmon and Associates, a management consulting firm, and this move helped the company gain valuable name recognition.

Through its initial public offering (IPO) in February 1993, Infosys raised much-needed cash to expand operations at its headquarters in Bangalore. By 2002, Infosys was employing more than 10,000 software professionals. Its revenues had grown significantly—from a mere $3 million in 1990 to $545 million in 2002. Its compounded annual growth rate (CAGR) from 1996 to 2001 was a staggering 50%. Business Week (June 24, 2002) ranked it as the third most profitable IT company in the world, ranking higher than IBM and Dell.

This India-based company has come a long way. Starting from a one-room office in 1982, Infosys today has sales offices in 17 countries, and several software development and training centers in India. It also has many notable firsts to its credit. For instance, it was the first Indian software solutions provider to be listed on NASDAQ (INFY) and also receive the Capability Maturity Model (CMM) Level 5 certification from the Software Engineering Institute at Carnegie Mellon University (www.infosys.com; Trivedi & Singh, 1999). The CMM certification process assesses the level of maturity and capability of software development processes used by IT services companies; Level 5 is the highest achievable.

Its growing reputation as a world-class provider of high-quality solutions attracted the brightest talents from India's top business and engineering schools. For the last several years, it had been consistently voted as India's most admired company and best employer in a variety of business publications (Trivedi & Singh, 1999).

The Sales Organization

Infosys has sales offices in several countries. The U.S. headquarters, which also serves as the global sales headquarters, is in Fremont, California. In the U.S., it has sales offices in Phoenix (AZ), Fremont (CA), Lake Forest (CA), Atlanta (GA), Lisle (IL), Quincy (MA), Troy (MI), Berkeley Heights (NJ), Dallas (TX), and Bellevue (WA).

At the core of the Sales Team are the Business Development Managers (BDMs). They are responsible for sales prospecting and generating clients and business for Infosys. They are assigned to one particular territory
and are responsible for business growth in that area. They report to a Regional Manager, who is responsible for a very large geographical area, termed a region in Infosys terminology.

Infosys has its delivery team divided into Strategic Business Units (SBUs). These units are organized in terms of geographic or domain specializations. For instance, there is an SBU called West and North America (WENA) that handles projects in most of North America, and there is an Enterprise Solutions (ES) SBU that handles projects in SAP, Baan, and other ERP technologies.

Other than the sales people, there are Account Managers (AMs) for large accounts. AMs are located at clients' sites and are the faces of the Offshore Delivery teams for the client. They are responsible for maintaining the client relationship, ensuring project deliveries, and generating new business from existing clients.

**The IS Organization**

The IS organization is a 150-member group and has the challenge of handling the technology needs of a technology-savvy company. The demands on the group are high, as system design requirements keep changing all the time--"our customers sit next door, so it's inevitable" is how the MIS group describes the situation. It has played a key role in making Infosys a truly paperless workplace. As Sivashankar often said, "The IS Department at Infosys is a key enabler and inherent part of all company systems and processes."

The IS Department is divided into smaller groups, each of which specializes in serving the needs of the various departments in the company. For instance, there is a Finance group that fulfills the software requirements of the Finance Department, an HR group for Human Resources, and the Sales & Marketing group that develops software for the Sales Team. Thus, each business function is mirrored within the MIS Department.

**The Industry**

The birth of the IT professional services industry (in which Infosys operates) can be traced back to the mid-1960s when companies such as Electronic Data Systems (www.eds.com) started providing data processing services. The industry continued to grow and the service offerings extended beyond data processing. For instance, the service offerings ranged from custom software development to facilities management, system design, software consulting, and training and documentation (Trivedi & Singh, 1999).

While the demand for software solutions continued to grow, companies in developed economies, like the U.S., were finding it prohibitively expensive and time consuming to develop solutions internally. Moreover, as technology cycles shortened and the complexity of computer systems grew, companies were finding outsourcing to be a more viable IT management strategy (Nalven & Tate, 1989; Clabum, 2003). Under these circumstances, Infosys found itself ideally positioned to make the most of this opportunity. This India-based company had a talented pool of programmers to draw from, and an efficient and mature software development and delivery process (Trivedi & Singh, 1999).

**SETTING THE STAGE**

**The Infosys Global Delivery Model**

Infosys's ability to deliver low-cost and high-quality solutions was primarily due to its Global Delivery Model (GDM). This GDM model (Appendix 2) relies on geographically dispersed teams seamlessly working at the lowest work breakdown level, and in multiple time zones to deliver significant customer value. GDM leverages key company strengths like a wide global presence and fast-acting offshore development teams.
While GDM was proving to be quite effective, its optimal utilization greatly depended on the effective coordination, communication, and collaboration between the onsite customer-facing sales teams and the offshore delivery teams. However, the support systems, to facilitate such interactions and information sharing, were either inaccessible or not integrated. For instance, the onsite personnel at client locations had to rely on fax and e-mail to communicate with their offshore counterparts. These onsite personnel had very limited access to the different corporate systems; many a times, they had literally no access to the data/information generated from these systems. To make matters worse, the existing customer relationship management system (CRMX) was not integrated with the back-end delivery systems. Such lack of integration greatly impeded the ability of the sales force to effectively respond to queries from current and prospective clients, promptly relay customer feedback to the delivery teams, and identify cross-selling opportunities.

Thus, CRMX had to be replaced with a more powerful and integrated CRM platform. Such empowering of the electronic infrastructure was essential for the future success of Infosys's GDM.

**CASE DESCRIPTION**

**CRMX: The Current CRM Platform**

CRMX, once an innovative product, was launched as an off-the-shelf customizable CRM package for mid-sized enterprises. It was easy to deploy and had a good contact management framework. Another major advantage with CRMX was that it had an easy-to-understand user interface. Infosys in the mid-1990s was looking for just such a package—easy to understand and deploy, and relatively inexpensive.

When Infosys implemented CRMX, it marked a breakthrough in sales force automation; but over a period of time, for many reasons, it started losing its usefulness. Primarily, it created another data island in the company, and the IS Department found integration with other existing systems extremely complex. Secondly, access to all the stakeholders (essential for effective visibility across the service chain) was proving to be prohibitively expensive because access was controlled through a custom security setup in the system and required individual license for each named user. Each user also had to have the system installed on her/his machine. Another major reason for wanting to replace CRMX was that it was only a sales-facing system. Infosys at that time was a very rapidly evolving company, but with few systems that linked sales with the delivery group. "We just don't know what you guys do out there in the field," was a common refrain among the Offshore Delivery people.

Most of the CRMX users were highly mobile and based out of small offices. Since CRMX did not offer Web-based access, it was becoming a problem for the mobile users to effectively use the system. The overall system performance was also a major irritant to the sales force. For instance, uploading client data by synchronizing the client PC with a "satellite server" was a perennial problem. Some Business Development Managers (BDMs) were often heard complaining, "I dread Mondays when I'm back in office and have to sit in front of the stupid server and endlessly sync my data." Comments like, "why can't it (CRMX) improve my productivity for a change?" were also quite common.

**Needs Analysis**

Careful analysis of existing systems before considering the adoption and implementing of a new system is standard practice at Infosys. It was a CMM level 5 company and the change management process was clearly documented. The change initiative in this case was code-named "foCus." The team formed to oversee this system replacement initiative had broad representation from all the involved groups. It included Basab (the Regional Manager, Chicago), Nitin, Jith (SBU head for the Asia-Pacific Delivery group), and many other Delivery Unit heads and other key people in the Sales Team. In fact, Nitin went the extra distance to ensure that each and every user group was represented in the steering team.
The needs analysis exercise led to some interesting findings. For instance, one of the key requirements was the need for a very different looking CRM system. This was surprising as there was an existing belief (among the "foCus" team members) that the users were happy with the look and feel of the previous CRM solution.

In addition to expressing the need for a new user interface, the respondents also emphasized the need for an integrated, fast, and cost-effective system. Since Infosys had a high level of expertise in a broad spectrum of application development and business analysis, senior management wanted an integrated system that would enable the various departments to share their respective knowledge and expertise and thereby realize synergistic benefits. The current environment of disparate applications serving disconnected user groups was no longer acceptable. Every system, it was felt, should be integrated with other systems for complete elimination of data duplication and data redundancy.

The needs analysis process led to the following guiding principles for developing the new system.

1. The customer relationship management platform will facilitate and support an integrated service—from lead generation to opportunity identification, proposal generation and submission, contract finalization, project set up, software development, and delivery.
2. From each stage in the project life cycle, relevant data will be handed over to the next stage. Duplication of data entry will be minimized.
3. Access will be provided to all stakeholders.
4. The system will be intuitive and easy to use.

**Evaluating Development Options**

The options essentially boiled down to (a) buying a new package and customizing it or (b) building a customized system from scratch. Nitin argued that buying an off-the-shelf system could once again take the company down the CRMX road. Rather than adjust to a company's unique business model and process competences, an outside system often forces the company to modify its processes to adapt to the system's needs (Davenport, 1998; Roy & Juneja, 2003). Moreover, the vision was to build a CRM platform that would ultimately integrate all aspects of the business—from marketing to product development and delivery and customer support.

But there were others who felt that the company should not divert its resources toward a project that was going to be fairly long drawn, and there was no guarantee that the final product would live up to expectations. They did not buy into the vision of an integrated CRM platform that would give a significant boost to Infosys's Global Delivery Model. They further suggested that Infosys send out a request for proposal from leading CRM vendors.

An intense and long drawn meeting followed to discuss the buy-versus-make issue. Compelling arguments were made in support of each of the alternatives. The committee failed to reach a consensus and a vote was taken to make the decision. By a small margin of two votes, the motion in support of developing a CRM platform was passed.

Nitin was pleased, especially because he strongly believed that the company possessed the requisite software development experience and expertise to deliver a leading-edge and long-term solution. He and his committee members then started brainstorming on how best to build a dynamic and scalable CRM system for the company. After numerous brainstorming sessions, the committee finally put together a proposal for building an integrated CRM platform.

A name was needed for the system. It had to be something with which users could identify and in Sivashankar's words "catchy." An internal e-mail was sent out seeking suggestions for a suitable name.
Almost everyone made a suggestion, and finally "CIMBA" was selected. CIMBA stood for: Customer Information Management By All. Overnight, the team became the CIMBA Team. The proposal was called the CIMBA (Customer Information Management By All) program.

Thus, the intent of the CIMBA program was to build an integrated CRM platform that would effectively link the front-end customer support systems with the back-end delivery systems (Maddox, 2003; Hill, 2003). It was envisioned to be a full-cycle automation and process deployment program that would, both directly and through spin-off gains, change forever the level of integration between the onsite and offshore teams at Infosys.

Appendix 3A provides a comparative depiction of the functionalities of CIMBA and CRMX. CIMBA was designed to offer a more comprehensive set of functionalities. For instance, CIMBA would offer additional capabilities in the areas of knowledge management, campaign management, and sales revenue forecasting. CIMBA was also expected to be a more integrated CRM platform that would effectively link the front-end customer support systems with the back-end delivery systems. Such integration would facilitate the handing down of data from one stage of the project life cycle to the next. Moreover, its superior data synchronization capabilities would provide (both the sales and delivery teams) access to real-time data. CIMBA would also support unique business rules and access controls, to insure, among other things, accuracy of revenue projections and avoidance of losses from unauthorized projects. It was also expected to (a) be more scalable, (b) provide greater information visibility and access to all stakeholders, and (c) be intuitive and easy to use.

**Potential Payoffs**

The CIMBA program had revenue generation, risk reduction, and streamlining processes in client interaction as major goals.

For Infosys, the most important metric for measuring the impact of CIMBA was *average relationship size*—"relationship size" (it is an Infosys term) refers to the amount of revenue being generated from each client. It was expected that the roll-out of CIMBA will enable the company to identify more cross-selling opportunities and thereby increase revenue.

Infosys had lost money on projects that were not properly authorized. By significantly improving process controls, CIMBA could cut down such losses. Moreover, CIMBA-enabled process controls would facilitate new levels of process compliance in the workings of the client-facing personnel, thereby greatly improving sales and revenue predictability.

The CIMBA application would also offer (management) granular visibility to field activity and the forecasting process. Finally, CIMBA would greatly enhance connectivity and visibility across the customer service chain. Superior connectivity and visibility would result in:

- Better targeting and follow-up of prospective clients.
- Improved quality and speed of response to customer queries.
- Offshore managers having a much better sense of the clients' and the market's pulse.
- Greater communication and coordination between sales and delivery teams.

**Establishing a Development Team**

Nitin set out to form the team that would develop the new system. He chose Sunil Thakur to lead the team. Sunil had recently joined the IS Department and had just finished a project as a Team Leader. He was very good at mapping user requirements to system functionalities. The other members in the team were Krishna, who was the Technical lead, and four developers who had recently joined the department. It was a young
team and the developers had little previous experience in building a large-scale Web-based system. The database administrator and graphics designer were sourced from a common pool in the MIS Department. Development of the system started in November 2000.

**Development and Implementation of CIMBA**

Sunil decided on following an iterative approach for developing the system prototype. The next six months were spent developing the system from scratch. While building an integrated CRM platform seemed like a powerful idea, translating that idea into reality entailed overcoming several types of implementation hurdles. These hurdles ranged from technical to procedural and organizational (Corner & Hinton, 2002; Kenyon & Vakola, 2003; Schmerken, 2003).

The CIMBA program called for building a class of Web applications that were never attempted before in the organization. It also called for seven other applications to be modified on synchronized timelines for seamless integration. For the first time, an application was being built for internal use that was not only to be used extensively from locations outside India on a true global scale, but also used in a sustained manner.

Users were expected to stay connected for sessions as long as a full working day. To deliver acceptable performance in a sustained usage scenario to globally located users, the team had to find new technologies and approaches.

The team selected XML as the technology of choice for developing a system that was scalable and could be seamlessly integrated with all types of devices and all other systems (Hagel & Brown, 2001; Marvich, 2003). Since none of the team members had prior experience with XML, a four-day training session was organized for the developers; the developers were given another week to become comfortable with the new technology.

The CIMBA initiative also involved a large-scale process definition and mapping exercise that required organization-wide consensus building. Key organizational entities had to agree on the complete set of life cycle processes from prospecting to opportunity management, forecasting, engagement initiation and execution.

A listserv called CIMBA TEAM was set up, and all stakeholders and future users were made members of this CIMBA TEAM distribution list. This listserv was used to share ideas, seek suggestions, discuss problems, post progress reports, and make announcements.

The CIMBA program also called for one of the most complex multi-phased data migration and process integration roll-outs. It called for migrating data from disparate sources into a centralized repository. It was clear that there were a lot of data inconsistencies, and hence the migration exercise would involve a large data cleanup exercise. The cleanup effort was not a simple technical cleanup; it required continuous liaison with business users and data owners across the organization to determine the correct mappings in the destination data set.

The development team also had to deal with scope creep challenges. Requests for changes kept coming even after the steering committee had come to an agreement on design and functionality specifications. Many of these requests led to changes in the look and feel of the system.

By June 2001, the first phase of the project was complete. CIMBA provided customer and contact management functionalities and a means to record opportunities (see Appendix 3B for a CIMBA homepage screen shot). It was rolled out to select "pilot" users, most of whom belonged to the WENA business unit. The initial user response was one of excitement. The pilot users found the system easy to use and intuitive to navigate. Some bugs and small user issues did crop up, but the CIMBA team resolved these problems fairly quickly.

Phase 2 involved integrating CIMBA with all other relevant systems. These were systems that were already
in use and automated processes like business proposal generation, letter of engagement, and project set up. It was here that the steering committee hit the first significant roadblock. The stakeholders from Sales and Delivery had different ideas on how the integration should be carried out, and they found it difficult to reach consensus. There were numerous conference calls, meetings, and brainstorming sessions, but no decision was reached for a full four months.

Meanwhile, Sunil and the CIMBA team kept on working to improve the system capabilities. Since the application was hosted on servers at Bangalore (a city in India) and the pilot users were in North America, system response was at times slow. To improve response time, programming code was optimized, cache settings were adjusted, and database tables were clustered. As Sunil once said, "Since we have the time, let us ensure that not a single piece of code is heavy. Let's ensure that when we send out data over the network, we send it in such a way that it's lean, mean, and quick."

As October 2001 dawned, there was intense pressure (from the Board of Directors) on the steering committee to reach consensus on the CIMBA integration process. Finally, at the end of October, consensus was reached on how best to integrate CIMBA with the other systems. With these new specifications in place, the CIMBA team resumed work in earnest. Sunil and Krishna sat down with the teams that were maintaining the other systems and determined the changes required to integrate with CIMBA. Once these technical details were identified, it took just a month to finish Phase 2. By the first week of December, the integrated version of CIMBA was ready for delivery. In Nitin's words, "The lion king is ready to roar," referring to Simba, the lion cub character in the movie The Lion King.

**CIMBA is Rolled Out**

In mid-December the integrated CIMBA suite was rolled out for one customer account, Insureco, a U.S.-based insurance provider and one of Infosys' prime clients. The reasons for choosing this particular company as the pilot account were many—a large account and a very tech-savvy AM, Michael Hudson, who was asked to be the key driver of CIMBA adoption in the Insureco team. Before the roll-out, many training sessions were held for the Insureco team, both in India and the U.S., to make it comfortable with the system.

Enabling CIMBA for an account can be quite complex as it involves synchronizing multiple databases and enforcing "gates" across multiple applications. But, the development team came up with a very elegant solution to make this process fairly simple. A combined database "switch" was made, which was a roll up of all the downstream switches. Once the data were migrated to the CIMBA database, all that was left was to turn the "CIMBA Switch" on and the account was automatically migrated to the CIMBA platform. This one solution must have saved the CIMBA team many hours of error-prone work.

Even though there were some initial hitches with the use of the CIMBA system for the INSURECO account, its implementation was deemed a success. Visibility of account-related information greatly increased across the entire management chain—from business development managers to account managers, delivery managers, and the entire top management team.

Bolstered by the success, it was decided to roll-out CIMBA, one by one, to the various sales regions (Roberts, 2004). The roll-out involved certain preparatory activities such as data migration from the CRMX database to the new CIMBA database, extensive training for both onsite and offshore users, and a whole list of other checks. Alongside the roll-out came carefully planned training and, as one Regional Manager put it, "impeccable user support." By the time the roll-out was completed, 356 users across the globe had been trained; total training time was about 2,026 hours, out of which 896 hours were done outside India.

However, to the surprise of the development team, within the first few days of the roll-out, the support calls would almost quadruple. There were BDMs requesting access to accounts, harried financial analysts complaining that they couldn't access their region's accounts, and marketing analysts claiming "access denied" for creation of Letter of Engagements. As one developer remarked, "It has become a madhouse here
at the CIMBA support hotline." Sunil's response was prompt, "No amount of training and pre-roll-out can prepare us for the post-roll-out period. These calls will come no matter how smooth the roll-out is. So folks, it makes no sense to wish them away!"

As Nitin and Basab looked forward to 2002, and the upheavals in the software services market, they were thankful that they had CIMBA in place. While CIMBA was off to a good start, Nitin and Basab remained hopeful that this CRM platform would survive the test of time and prove to be a very good investment for the company. A lot of time, money, and effort had gone into building this platform. Some of the skeptics in the organization were still of the opinion that it would have been more prudent to have bought or leased a CRM solution from a leading vendor and thereby reduced some of the development, maintenance, and upgrade costs.

**CURRENT CHALLENGES/PROBLEMS FACING THE ORGANIZATION**

While the CIMBA platform has greatly improved communication and collaboration between the sales and delivery people, it has yet to realize its ultimate goal of electronically integrating the entire value chain. While it does integrate the front-end customer support systems with many of the back-end delivery systems, the extent of integration is far from being total and seamless. The current version of the system is yet to enable the seamless sharing of data with several other corporate systems that are responsible for functions like project execution and operations, finance, accounting, and human resource management. For instance, the following systems are yet to be integrated with CIMBA.

- **PSWEB:** a manpower allocation (to projects) system
- **A/R Tracking:** used to track the recovery of amount billed to customers
- **IPM:** a tool used to manage an active project

Mobilizing organization-wide support and commitment to bring about that level of integration has been difficult. Moreover, the relative newness of CIMBA made it difficult to convince those who still doubt the stability and scalability of the platform. Several of the key decision makers want to watch the performance of the current version of the system for a couple of years before expanding its scope. They are also keen on realizing some quick and significant returns from the time and money invested in developing CIMBA.

In addition to the challenge of achieving greater process and functional integration, there is also the challenge of developing and/or adopting a suitable set of metrics to measure the effectiveness of CIMBA. While the CIMBA proponents have claimed victory by suggesting that this new system has realized its three major goals—revenue generation, risk reduction, and streamlining client interaction-related processes—these claims are yet to be well substantiated with a relatively objective set of metrics. For instance, it was claimed that CIMBA resulted in an improvement in the average relationship size, that is, the average revenue earned from current clients. But several of the skeptics questioned the claim and argued that the increase in revenue was due to a boom in the outsourcing business and the company's solid reputation; one of them commented, "I can't see how the CIMBA platform has improved our capability to effectively execute the Global Delivery Model."

Computing the total cost of ownership (TCO) of CIMBA is yet another operational hurdle. Identifying and included all relevant expense categories—ranging from direct and indirect labor costs to hardware and software costs and the costs of providing on-going training, maintenance, and user support—has been a challenge. The assumptions and estimates that have to be made for computing TCO have also been grounds for disagreement and dispute. For instance, while many felt that the TCO should be computed for three-to-five years, there were others who wanted it to be more long term. This disagreement essentially stemmed from two distinct views about the potential benefits from CIMBA. According to one school of thought, CIMBA was a short to medium-term technology solution for automating marketing, service, and
sales function. They had a narrow view of CIMBAâa CRM solution that was a competitive necessity and not a source of sustained competitive edge. But then there was the other group that envisioned the CIMBA program to be much more than a technology solution for automating sales, service, and the marketing function. To them, CIMBA: (a) represented a concerted effort to improve all business processes to better meet the needs of the customer; and (b) epitomized a customer-focused, long-term approach to achieve a better alignment between the company's business and IT strategy.

The other challenge that CIMBA implementers are grappling with is to get the users, both at the client sites and offshore delivery sites, to learn to use CIMBA more effectively. Despite providing several training sessions, several users are found to use only a limited set of the functionalities. For instance, many in the sales organization still treat and use it as a tool for contact management; they have yet to learn to use its various analytical capabilities to gauge customer needs and behavior and develop effective marketing strategies.

ACKNOWLEDGMENTS

This case is intended to be the basis for class discussion rather than to illustrate either effective or ineffective handling of a management situation. While the situation discussed in this case is real, some distortions have been intentionally made for enhancing its effectiveness as a teaching tool.

We would like to acknowledge the contributions of Mr. Amit Gupta and Mr. Nitin Gupta in helping us prepare this case.

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**APPENDIX 1. INFOSYS PRODUCTS AND SERVICES**

The table below provides a snapshot of the IT solutions and services provided by Infosys to a wide range of industry verticals.

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<thead>
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<th>Illustrative solution areas</th>
<th>Engagement Life-cycle Stages</th>
<th>Typical Engagements</th>
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<td>Business Process Management</td>
<td>Consulting and Strategy</td>
<td>Automotive</td>
</tr>
<tr>
<td>Customer Relationship Management</td>
<td>Architecture and Integration</td>
<td>Structural analysis of engine mounting bracket.</td>
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<tr>
<td>Knowledge Management</td>
<td>Custom Systems Development</td>
<td>Weight optimization of EDH bracket.</td>
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<tr>
<td>Mobile Computing and M-Strategy</td>
<td>Re-engineering and migration services</td>
<td>Full range analysis and solutions for seating systems.</td>
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<tr>
<td>Supply Chain Management</td>
<td>Maintenance and Support</td>
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<td>IT Strategy</td>
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<td>Infrastructure Management Services</td>
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Source: Infosys corporate Web site, [www.infosys.com](http://www.infosys.com)
Infrastructure Management Services

Financial Services

- Development of online trading systems for brokers.
- Development of a transaction processing system known as the Authorization and Capture system.
- Development of an application architecture.

Healthcare

- Development of an electronic health record system.
- Development of a web-based integrated application to automate the authorization process.
- Development of an application architecture.

APPENDIX 2. INFOSYS GDM IN ACTION

APPENDIX 3A. CRMX AND CIMBA FUNCTIONALITIES
APPENDIX 3B. CIMBA HOMPAGE

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This case was previously published in the Journal of Cases on Information Technology, 7(4), pp. 127-142, © 2005.

Source Citation:


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