

WHITE PAPER

The Role and Benefits of Quality in Delivering Offshore IT Services

Sponsored by: Wipro Technologies

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IN THIS WHITE PAPER

This white paper discusses the role and benefits that quality can have in delivering IT services and, in particular, offshore IT services. Quality is a term that is often used, especially when IT services firms market to potential customers, but its meaning is usually abstract. This document attempts to make the term "quality" more tangible by providing IDC's framework for understanding it as a critical element of service delivery and organizational effectiveness as well as analyzing its effect on business benefits.

This paper answers questions such as:

- What is quality in relation to the delivery of IT services from external providers?
 - How is quality related to business results and benefits?
 - Why is quality important when evaluating external IT services firms?
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The Delivery of Offshore Services

IDC's analysis is that offshore services:

- Do not represent a new market segment but rather an increasingly important service delivery or sourcing model
- Were originally offered to counter IT skills shortages and increasing salary costs but are now trading on the economic slowdown and organizations' quest for lower cost structures
- Are part of a structural change in the IT and business services industry
- Represent a new and durable reality with which all service providers will have to deal, both now and in the future

The phenomenon of offshore services delivery is not new, but it is currently enjoying a renewed level of interest. This renewed interest is partly due to the current economic conditions, which encourage exploration of low-cost options, and is partly due to the increasing maturity of the offshore vendors that are active today. The current economic conditions are opposite to those that originally launched the model, when offshore services firms were largely used to supplement an IT shortage in preparation for Y2K projects.

While a lack of resources, particularly in the United States, initially drove the demand for offshore services in the 1990s, it is now the cost factor that is giving offshore services firms a competitive advantage. In specific segments of the services market, including custom application development and maintenance and customer care services, the market has already witnessed the beginning of a shift of some activities from relatively high-cost areas to relatively low-cost areas of the world.

While the demand for offshore services remains largely driven by pricing considerations, the ongoing build-up of intellectual capital among the offshore services firms will enable an increasingly quality-driven value proposition. The net effect is that for many IT skills — specifically those that do not require customer proximity — the offshore delivery model is extremely compelling in both quality and price. While the current economic conditions may have accelerated the exploration of low-cost options, the structural change in the delivery model for at least a component of many IT engagements is here to stay.

Many of the offshore Indian firms have used quality as a competitive differentiator for years. Quality certifications provide a common standard that is recognizable to companies regardless of their industry and offers a "stamp of approval" from a third party, whose role is to validate whether a company meets certain requirements. Thus, quality certifications can provide additional confidence and comfort to clients, particularly when the service being performed can be thousands of miles away. Furthermore, given the strong technical focus of the offshore firms, it seemed a natural evolution to achieve a high level of competency and certification for software development.

While quality may sometimes take a back seat to cost when companies turn to external services firms, IDC believes that it should be a fundamental requirement in any services engagement. While clients' expectations tend to fluctuate depending on external factors as to whether quality or cost may be more important, IDC believes that these two factors go hand in hand and that, in the long run, cost savings cannot truly be realized without an attention to quality.

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IDC believes that these two factors [quality and cost] go hand in hand and that, in the long run, cost savings cannot truly be realized without an attention to quality.

IDC's Quality Framework and Its Business Benefits

IDC believes that quality can be thought of along two primary dimensions: service delivery and organizational effectiveness. Service delivery is the ability of an organization to deliver a specified service or product to clients based on mutually agreed upon requirements. Organizational effectiveness refers to having internal processes in place to manage human capital and projects, train personnel, and continually improve the quality of service delivery.

Most companies are primarily concerned with service delivery quality. For example, companies want the best applications to be delivered according to their specifications, on time, and without cost overruns. Oftentimes, they are not aware of, or interested in, the "behind the scenes" organizational effectiveness contributing to the quality of application development. However, IDC believes that overall quality benefits cannot fully be achieved unless service delivery and organizational effectiveness are supporting each other.

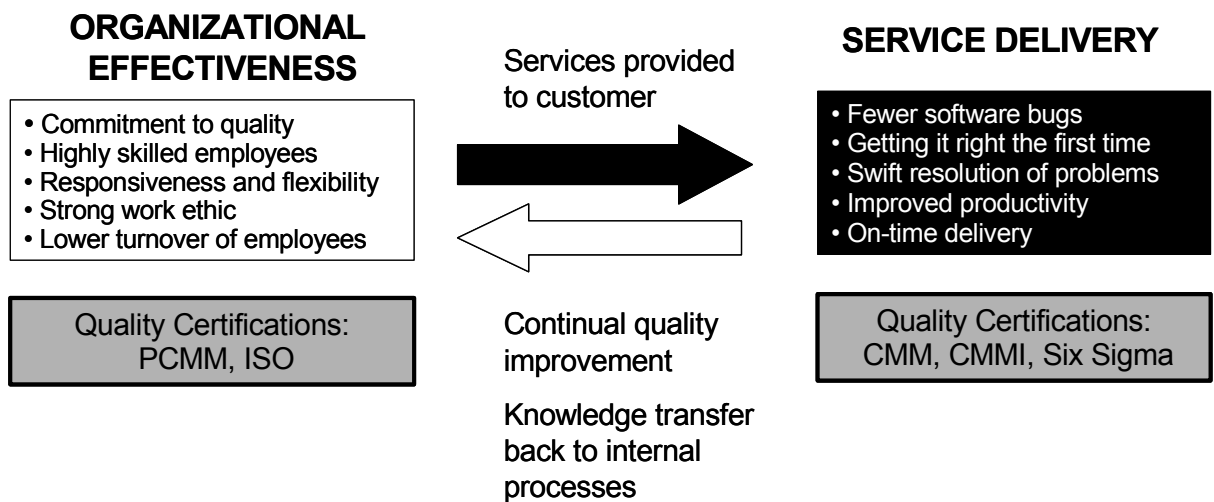
IDC believes that quality can be thought of along two primary dimensions: service delivery and organizational effectiveness.

For example, without the proper training and skill sets, employees would not be able to turn functional and technical requirements into software applications. Although many companies may have quality certifications in one or the other dimension, it is really the integration of these two that is needed for maximum benefits.

Figure 1 provides IDC's view of the relationship of service delivery and organizational effectiveness between the customer and the services firm.

FIGURE 1

The Relationship of Organizational Effectiveness to Service Delivery



Source: IDC, 2003

The Impact of Quality on Business Results

IDC research has found that there are many benefits to working with a services firm that has a commitment to quality. Table 1 summarizes these benefits, which are both quantitative and qualitative in nature, and describes the impact of organizational effectiveness on service delivery. Interestingly, many of these benefits are not mutually exclusive but, instead, overlap and create a value chain of dependencies that generate mutual benefits. For example, cost savings are the result of several benefits, such as fewer software bugs, less needed rework, and highly trained employees with lower turnover.

TABLE 1**The Impact of Organizational Effectiveness on Service Delivery**

Service Delivery Business Benefit	Organizational Effectiveness
Fewer software bugs	Given the robust processes put in place as a prerequisite for quality software development, the results are often a smaller number of software bugs in the product being developed as well as thorough documentation of technical and functional requirements that allow for coordinated version control.
Getting it right the first time	Having sound software engineering processes, skilled employees, and strong project management contributes to project deliverables' being completed only once without continual revision. As a result, companies have reported a reduction in rework needed, which translates into a greater chance of completing a project on time.
Swift resolution of problems	When problems do arise during the course of software development, they can be tracked and analyzed quickly. Quality requires thorough documentation and tracking of software code and problems. Therefore, the tools and structure are in place to efficiently determine the root cause of a problem and what else may potentially be affected and then provide a workaround.
Improved productivity	The software engineering processes, methodologies, and tools used as part of an integrated quality system can lead to improved productivity. As a result, more lines of code may be written per day, which in turn will aid in meeting project deadlines effectively.
On-time delivery	Having the appropriate tools in place to manage the development of software, overall project management, and resource allocation can allow for ongoing visibility into a project's progress. The benefit can be projects that are completed not only on time but also significantly early, an anomaly in the IT services industry. Again, this is a result of less rework, fewer software bugs, and the swift resolution of programs. It also requires teams that are able to work together effectively with common tools, processes, and objectives.
Cost savings	The ultimate result of many of the benefits listed herein is the amount of money that can be saved. Fewer versions of an application needed, less rework required, and fewer bugs all assist in shortening the development cycle and can result in tangible cost savings for customers. IDC research finds that customers are able to realize significant cost savings from projects in which quality played an integral part. Equally important to development cost savings are the maintenance cost savings that customers typically experience. Maintenance can sometimes be as costly as the up-front development. However, the benefits attained in the development phase should further translate into cost savings during maintenance.

Source: IDC, 2003

Organizational Effectiveness

Many factors can be considered when looking at organizational effectiveness, the back-office foundation of service delivery, and its effect on quality. Some of these factors include:

- ☒ **Commitment to quality.** A company's commitment to quality can be truly successful only when it starts at the top of the organization and employees and managers alike believe in the vision of quality for the company. The objectives of quality must be ingrained within the culture of the company, which is, in turn, passed on to customers and ties back to business objectives.
- ☒ **Highly skilled employees.** A strong attention to training employees on a company's quality processes, whether directly or indirectly, can result in a highly cohesive workforce. A rigorous training program can be a catalyst for consistency throughout the company. Additionally, it may provide a standard approach to software engineering, from requirements gathering through release and acceptance testing. Furthermore, having a structure in place to manage skill competencies with market demand is essential to getting the right people placed on the right projects. Lastly, having the processes in place to acquire new competencies and stay ahead of the learning curve will be a key asset to clients, who look to services firms to understand the latest technology trends.
- ☒ **Responsiveness and flexibility.** While it may be harder to measure the benefits of responsiveness and flexibility and their relationship with quality, IDC believes that these attributes can largely contribute to the overall success of a services engagement. Having the tools necessary to support employees in their daily interactions with customers can go a long way toward empowering them to respond quickly to clients' needs and provide workarounds to problems in a timely manner.
- ☒ **Strong work ethic.** Although work ethic is largely a subjective criterion, it can be supported through a company's overall attitude toward quality and attention to customer satisfaction.
- ☒ **Lower turnover of employees.** A strong attention on employees and their training can result in a lowered rate of employee turnover. IDC research finds that this is of significant importance to customers, who invest a lot of time and energy in educating service providers about their businesses. Lower turnover of employees can also contribute to faster completion of projects because many employees will have the accumulated synergies from working together and with the client.
- ☒ **Robust project management processes.** Solid project management expertise and its supporting tools and applications are a critical success factor for the smooth completion of any project. This has become even more important as large, enterprisewide projects may be composed of multiple subprojects and may involve geographically dispersed resources.
- ☒ **Strong communication flow between client and services firm.** Another benefit of an integrated quality system is the continuous monitoring of current projects. This may take the form of customer visibility tools that allow customers to keep track of a project's progress, particularly when projects are done remotely from the client's site. It may also help to keep the communication flow open and direct, which may assist the meeting of tight project deadlines.

Wipro and Its Approach to Quality

Company Overview

Wipro Technologies is the global IT services business of Wipro Limited, a diversified company with the principal line of business of IT and consumer products. Wipro Limited, which had \$902 million in revenue for FY03, also has other interests in fluid power, lighting, medical equipment products, and financial services.

Wipro Technologies makes up around 67% of the company's total revenue and is Wipro's fastest-growing business. Wipro Technologies achieved \$617 million in revenue for the fiscal year ending March 31, 2003, and has over 18,500 employees. Wipro Technologies has emerged as the second-largest software exporter from India and has a high-powered client base, including GM, Lehman Brothers, Sony, NYSE, Weyerhaeuser, Thames Water, Lucent Technologies, Nike, and Nortel.

Wipro Technologies provides end-to-end IT deployment solutions to suit the specific business needs of large enterprises and small and medium-sized enterprises in the United States, Western Europe, and Japan. It offers systems integration solutions, network integration solutions, application development and maintenance solutions, packaged applications (such as enterprise resource planning [ERP], customer relationship management [CRM], and supply chain management [SCM]) solutions, ecommerce solutions, IS outsourcing services, and business process outsourcing (BPO) services.

The History of Quality at Wipro

Wipro is an ideal company to profile when looking at quality initiatives because of its commitment, focus, and experience on companywide, comprehensive quality processes and certifications. Wipro began working on its quality initiative over 12 years ago in order to alleviate customer concerns about using an offshore provider. In 1995, it was awarded ISO 9000 certification and, since then, the company has continued its march toward quality with CMM Level 3 in 1997 and CMM Level 5 and Six Sigma in 1998.

Today, Wipro has one of the most mature quality programs in the industry and boasts several "firsts." For example, it was the first company in the world to be awarded PCMM Level 5 and CMMI Level 5 and the first SEI CMM version 1.1 Level 5 software services company (see the Appendix for certification definitions). In 2000, Wipro transitioned from CMM to CMMI, an integrated model that is wider in scope than CMM and covers software, systems integration, and product development.

As offshore sourcing of IT services has become more common and customers have become more comfortable using offshore providers, Wipro has seen expectations rise in tougher economic times, with cost savings, timeliness of deliverables, and high quality all required. Wipro has continued to focus on quality processes based on a strong belief that cost, timeliness, and quality are all interrelated and that improvements to the project management and software development process will continued to lead to productivity benefits and high-quality, lower-cost services.

Wipro's Total Quality Framework: Veloci-Q

Wipro demonstrates a considerable amount of discipline around project process and has dedicated 2–3% of the company to work on quality initiatives. This investment reportedly keeps overhead low and productivity high and allows resulting cost and quality benefits to be passed on to the customer.

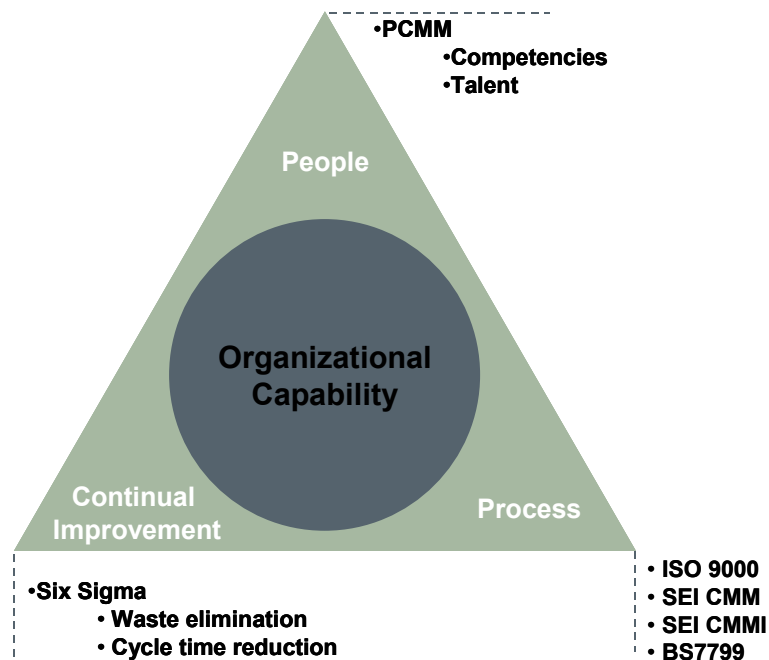
Wipro's commitment to quality starts at the top of its organizational structure and filters throughout the company. The company maintains a position of chief quality officer (CQO), who reports directly to the vice chairman. The CQO is mainly responsible for designing, implementing, and maintaining the vision of Wipro's commitment to quality. The CQO oversees groups that focus specifically on SEPG and metrics, tools, Six Sigma, and knowledge management in support of its quality initiatives. Wipro implements processes throughout each project via quality controllers, who liaise with technical and project managers to check for system defects and ensure that quality processes are followed.

Wipro has organized its quality approach into a total quality framework that it calls Veloci-Q. This framework results in a holistic, companywide approach to quality that integrates all quality processes. Veloci-Q encompasses the people, processes, technology, and rigorous certification standards to interconnect all elements of organizational effectiveness in the delivery of services (see Figure 2).

FIGURE 2

Wipro's Total Quality Framework: Veloci-Q

Integrate People, Processes, and Technologies



Source: Wipro, 2003

The Benefits to the Customer

An important aspect of Wipro's dedication to quality is its commitment to measure, track, and constantly improve its progress. The company keeps a very transparent process for customers and employees. Some examples of ongoing quality implementation include:

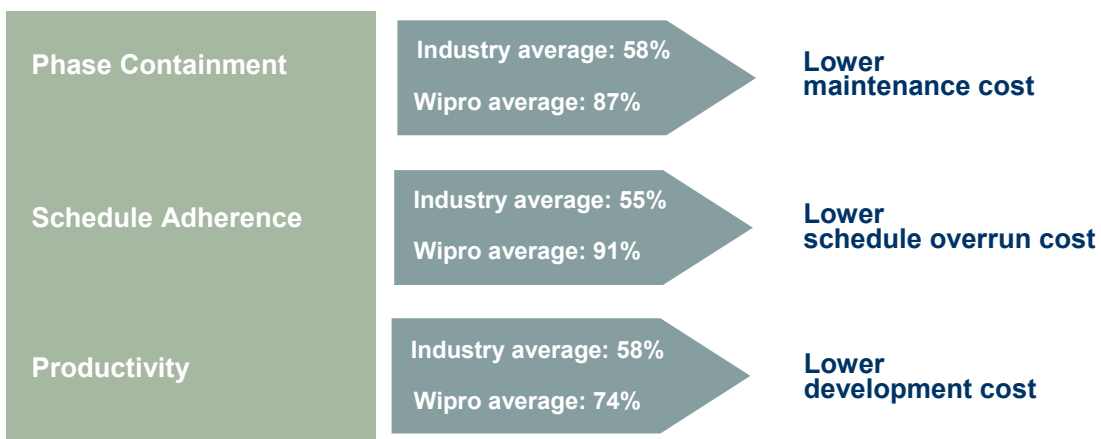
- ☒ A quality board that meets every 14 days with senior project managers to discuss, add to, and improve processes. A project database of 2,000 clients classified by platform includes all information for leveraging past project lessons.
- ☒ Project status reviews occur once a week with internal teams to set priorities and once a month to review productivity.
- ☒ Each employee has 8–10 training sessions per year to learn new technologies, earn quality certifications, and obtain business training such as on cross-cultural issues.

Wipro's emphasis, through Veloci-Q, on organizational effectiveness and getting things done right the first time has a concrete influence on the company's performance and service delivery. Wipro outperforms the industry in such areas as phase containment, schedule adherence, and productivity, resulting in cost savings for its clients.

Wipro can offer lower application and maintenance costs because it has low defect rates (measured by error rates, such as defects per lines of code). Defect prevention — post release — rates are less than 0.2% per million lines of code (KLOC), which is the lowest in the industry. In addition to high-quality deliverables, which result in fewer project delays, Wipro also has high productivity rates in terms of its lines of code generated per day. This achievement results in on-time deliverables and a very low deviation rate from project schedules. The Six Sigma program helps to complete 91% of projects on schedule, compared with the industry average of 55%. Figure 3 further illustrates Wipro's success metrics.

FIGURE 3

Veloci-Q: Delivering Value to Customers



Source: Wipro, 2002

Customer Case Studies

Below are three case studies that profile customers of Wipro Technologies and their experience and perspectives on quality. While each customer interviewed had different project needs, perspectives on quality, and benefits from working with Wipro, it is clear to IDC that Wipro's Veloci-Q and attention to quality contributed significantly to each of the projects' successes.

Global Money Management Firm

Company Overview

This global money management firm has over 65 years of investment experience, \$241 billion in assets under management, over 700 institutional clients, and over 12 million shareholders and retirement plan participants. The firm offers a broad range of investment products, including institutional portfolios; 401(k)s, IRAs, and other retirement plans; mutual funds; variable annuities; and alternative investments for institutions and high-net-worth investors.

History with Wipro

The global money management firm and Wipro have a longstanding relationship, dating back to the early 1990s. The firm originally explored the alternative of using an offshore services organization primarily to derive cost benefits but also to improve the quality of life of its employees. At the time, the firm had its IT employees on call 24 hours a day, 7 days a week, to provide support services on its Transfer Agency applications. By using Wipro to provide these support services, the global money management firm was able to achieve both of its goals: to alleviate the burden on its employees and to provide continuous support while realizing cost savings.

The global money management firm chose Wipro over other companies after its senior team visited Wipro's facilities in India. The senior executives were impressed by the facilities and the people they met, who were cited as "the best recruits" from universities and who had received excellent training from Wipro.

From the early 1990s to the current time, Wipro has been involved in a variety of different projects for the global money management firm's Transfer Agency. The Transfer Agency does record keeping and processing of shareholder accounts for the selling, buying, and exchanging of investments. The firm engages Wipro in projects that range from assistance on Y2K initiatives to the implementation of a college fund plan to ongoing support services.

Given its long history with the global money management firm, Wipro has developed a deep understanding of the company's business processes and culture. A critical success factor toward ensuring the smooth and quick implementation of projects has been Wipro's continual presence onshore at the global money management firm's facilities. Typically, 50% of the Wipro team is at the firm's facilities, and 50% is offsite in India. This has been instrumental in allowing a transfer of knowledge about the money management firm's business between Wipro onsite and offshore employees.

Perspective on Quality

The global money management firm believes that the result of Wipro's attention to quality is evident in the end deliverable and its overall support of its client. As is the case for many companies, the firm is less interested in the back-end processes of quality and more in its overarching, daily effect on the organization. Based on the global money management firm's experience with Wipro, it describes the following ways in which quality has manifested itself on Wipro's projects:

- ☒ **Responsiveness.** Wipro's strong attention to client satisfaction results in a commitment not only to respond quickly to client requests but to do so with suggestions for improvements. In addition, Wipro is receptive to the global money management firm's suggestions, and it views the relationship as a true partnership.
- ☒ **Efficient problem resolution and rework reduction.** Wipro is able to "roll with the punches" in order to respond to ever-changing functional and technical requirements. Because Wipro tracks many metrics through its robust software development processes, the capture of software bugs, and thorough documentation, it is able to provide a detailed and fast examination of problems such as bug fixes and the causes of delays. Wipro can see trends, identify reasons for issues, and quickly resolve problems. It tracks the rework reduction and reviews with the global money management firm monthly, as this is important to the client.
- ☒ **Adherence to project schedule.** Wipro's attention to detail and deadlines allows it to meet tight time frames for delivery.
- ☒ **Reduced cost.** While Wipro's cost advantage as an offshore Indian firm contributes to its ability to provide its clients with cost savings, its on-time delivery and swift problem resolution are equally important.
- ☒ **Less employee turnover.** Wipro has developed a critical mass of employees dedicated to the global money management firm and its business. This continuity has diminished any rework needed, enhanced Wipro's intellectual capital, and provided a sense of security with its client.

College Fund Project

A college fund project for the state of Ohio provides an example of the effect of quality on Wipro's service delivery. The global money management firm won the opportunity to sell its College Advantage plan in the state of Ohio, as detailed in Table 2.

TABLE 2

College Saving Plan Project Summary

Challenge	Result
The system had to be retrofit to the state's requirements in a limited time frame of five to six months.	Wipro delivered the finished product in three months.
Project requirements were negotiated up until three weeks prior to the delivery deadline.	Wipro's documentation and tracking mechanisms enabled it to be flexible to changing requirements and to suggest workarounds in short time frames.
This was not a straightforward mutual fund implementation.	Because Wipro had low employee turnover, its employees were knowledgeable about its customer's business and could understand the objectives of a more complex project.

Source: IDC, 2003

The ultimate result was that the project was completed within budget, on time, and at a reduced cost compared with other project bids. The global money management firm now works exclusively with Wipro.

High-Tech Manufacturer

Company Overview

The high-tech manufacturer is a leading manufacturer of audio, video, communications, and information technology products for the consumer and professional markets. It recorded consolidated annual sales of over \$50 billion for fiscal year 2002 and employs approximately 150,000 people worldwide. The profile below refers to the company's U.S. subsidiary.

History with Wipro

The high-tech manufacturer first engaged Wipro for a project that involved consolidating accounts receivable applications. The project used Wipro's offshore development capabilities exclusively, and Wipro had little to no presence at the client's site. Although the project needed to be completed within 90 days, Wipro was able to finish it in 89, under budget, and with "flawless execution." Given Wipro's initial success, the company was asked to bid on a larger upcoming project.

The high-tech manufacturer has a rigorous process to evaluate service providers and, for this large project, considered bidding companies based on such criteria as company standing, experience, offshore model, cost, reputation, technical skills, vertical expertise, and customer references; business continuity and failover plans; and proposal for transition from an offshore to a cosourced model. Quality was an important factor considered in the vendor selection process, given the high-tech electronics manufacturer's own experience with quality.

Wipro's quality certifications stood out among those of its competitors. Not only did the offshore services firm promote its own accomplishments in this area, but it also played a role in educating its client about its approach to quality.

Perspective on Quality

Because the high-tech manufacturer is diverse and global, it emphasized the people and process aspects of quality. Having the people and processes in place to ensure the highest degree of service is a core foundation of quality, according to the manufacturer's experience. It was important to the company that service providers be able to deal with cultural issues and that team compatibility not affect getting the code right. For this reason, Wipro stood out with its PCMM Level 5 certification in particular.

Financial Systems Project

The high-tech manufacturer was looking for a provider for its large financial systems projects that would provide:

- ☒ **Staff augmentation.** The manufacturer wanted help with the migration of its internal teams from a legacy system to a new platform. This included project management assistance.
- ☒ **Increased time to market.** The manufacturer wanted to get products to internal clients faster.
- ☒ **Move to a cosourcing model from a traditional offshore sourcing model** and evolution from legacy management and programming to cosourcing projects. Cosourcing would include legacy management and programming as well as sustaining and maintaining projects in which the manufacturer and Wipro equally shared in the responsibility and accountability.

Wipro was chosen, after the previous project success, as the services firm for a high visibility internal project that revolved around the need to close the financial books across the company in one day. This was a massive undertaking that involved 36 divisions within the high-tech manufacturer, hundreds of sophisticated applications, stakeholders from both the business and IT sides of the company, and a tight time frame. There were 35 subprojects to support the overall project and hundreds of deliverables. The time frame of the project was 18 months.

The high-tech manufacturer highlighted several important aspects of Wipro's quality approach in its interview with IDC. These items went beyond the fact that Wipro completed the project on time and under budget:

- ☒ **Platform-specific documentation.** The high-tech manufacturer was impressed with the level of documentation that Wipro provided. While there were relatively few bugs in the code, when they were detected, Wipro employees could tell the manufacturer, in less than 24 hours, why and where they occurred and what could fix them. In less than five days, all bugs were fixed, demonstrating the strength of the employees' understanding of software development.
- ☒ **Onsite training.** Wipro was able to provide onsite training in new applications to its clients' employees, who had been working with legacy systems for years. This training also included assistance with project management and other upstream skills.

- ☒ **Rapid development.** Overall there were a low number of software bugs in the product. When bugs did arise, Wipro had the resources and tools necessary to determine why they occurred, what else they were affecting, when they would be fixed, and how they would be fixed. The high-tech manufacturer reported that Wipro provided "unbelievable application solutions" to the projects.
- ☒ **Smooth flow of work between offshore and onsite facilities.** Functional and technical aspects of the project were done at both Wipro's offshore and onsite facilities. Because of Wipro's in-place quality processes, it was able to ensure a seamless flow of information and communication across the different time zones and cultures. This ultimately led to the current cosourcing model, in which Wipro is sustaining the application to support the financial systems of the high-tech manufacturer.

International Forest Products Company

Company Overview

This company is an international forest products company with annual sales of \$18.5 billion. The company was founded in 1900 and currently employs about 58,000 people in 18 countries. It has ranked in the Fortune 200 since 1956 and ranked number 1 in categories ranging from softwood and hardwood lumber products to social responsibility. The company's diverse businesses touch nearly every aspect of the forest products industry, from growing and harvesting trees to producing pulp, paper, packaging, and building products.

History with Wipro

The forest products company initially engaged Wipro in preparation for Y2K, an initiative that many companies undertook in the late 1990s in order to ensure that programming code would be acceptable in the new date format. At that time, Wipro provided staff augmentation in support of Y2K initiatives.

Around the same time, the forest products company undertook a new approach to its external sourcing program. There were several drawbacks to its current model that drove it to reassess its benefits. The first driver was the need to reduce its reliance on local independent contractors, many of whom could quit the company without any notice, leaving the company in a jam. When this happened, much of the intellectual property gained throughout a project walked out the door. The forest products company was also interested in reducing its overall costs. Lastly, the company wanted to augment its skills and capabilities in order to protect itself from resource turnover.

Given Wipro's history with the Y2K projects, it was evaluated along with other major IT services firms that were already working in some capacity for the forest products company. Wipro was invited to do some pilot projects, during which the forest products company realized several benefits, such as lower cost and high quality. Since that time, Wipro has been involved in several projects for this client.

Perspective on Quality

The forest products company states that it had no preconceived notion of quality prior to working with Wipro but that its expectations for quality have risen since working with the Indian offshore firm. At the same time, the forest products company believes that quality is a somewhat subjective criterion, and it does not usually put it as a requirement in its contracts. Instead, quality has become an underlying expectation when using an external IT services firm.

The forest products company believes that quality can manifest itself in a number of ways, some of which are easier to quantify than others. For example, meeting cost and scheduling requirements are easy to quantify and measure. On the contrary, having a good work ethic and being flexible and courteous are difficult to measure and, as stated above, tend to be harder to quantify. Regardless, the forest products company was able to realize the following benefits from working with Wipro:

- ☒ **Cost savings.** The forest products company's initial target for cost savings was \$15 million over three years. As a result of working with Wipro, the company achieved cost savings of \$36 million.
- ☒ **Increased customer satisfaction.** The forest products company experienced an increase in its internal customer satisfaction rating as a result of projects done by Wipro. While the company originally had a customer satisfaction rating of 3.8 out of 5 among its internal IT clients, this number has increased to 4.2 out of 5.
- ☒ **Lower ongoing maintenance of applications.** Because of the high attention to detail and robust quality processes used throughout the product development life cycle, the forest products company states that it has less maintenance to do on applications developed. This is primarily the result of Wipro's approach to the software code, configuration, and data cleansing.
- ☒ **Strong customer focus.** The forest products company's experience with Wipro was positive because of the offshore services firm's responsiveness, flexibility, strong work ethic, and courteousness. Whether these attributes are a direct result of quality or part of the company's fabric is debatable. However, it was these characteristics that assisted in getting projects done on time and under budget.

Overall, the forest products company believes that it reaps the day-to-day benefits of Wipro's devotion to quality, whether or not it can pinpoint exactly which quality certification may be driving a particular process. While the company may not have a detailed understanding of the organizational effectiveness driving the quality service delivery at Wipro, it is sure it is reaping the benefits of these processes and is committed to working with Wipro.

Conclusion and Recommendations

IDC has observed that companies have grown increasingly aware of quality and its benefits to the business, in part because of education from services firms. While this awareness does not always manifest itself in knowledge of particular quality certifications, standards, or processes, the true test of quality is in the business benefit that clients see on a day-to-day basis and in the final deliverable. As a result

of the growing understanding of quality and its benefits, companies are now requiring an attention to quality among their services firms. IDC finds that the main driver is an awareness of the benefits that quality can have on the bottom line.

For customers trying to understand the effect of organizational effectiveness on service delivery as well as the benefits of a quality approach, IDC makes the following recommendations:

- ☒ **Separate the forest from the trees.** IDC believes that it is important for customers evaluating quality to separate specific quality certifications from the benefits that an overarching approach to quality can achieve. While quality certifications provide the foundation for an overall quality framework, IDC believes it is imperative to understand how those quality certifications manifest in particular benefits on a day-to-day basis and in a final deliverable rather than in specific compliance to quality. It is far more important to evaluate a services vendor on the benefits it can help a company achieve rather than just the number of quality certifications it has.

- ☒ **Deepen understanding of organizational effectiveness.** As companies require their services firms to have higher levels of quality certifications, these companies, in turn, need to deepen their understanding of an important aspect of quality — namely, organizational effectiveness. While functioning behind the scenes, this aspect of quality permeates every facet of service delivery quality and all interactions between the services firm and customer. When evaluating services firms, a company must be aware of how the firm is managing human capital and what processes and tools are in place to support projects.

- ☒ **Quantify the benefits to the business.** Although many companies do not have the measurement systems or processes in place to quantify the business benefits of IT projects, IDC recommends that companies require their external services firms to do exactly that. Companies should take advantage of the quality processes and visibility that services firms can provide to truly measure progress on IT initiatives. This may not only elevate IT's role in contributing to a company's business objectives but also add credibility and loosen purse strings for future, more innovative projects rather than relegating IT to a purely reactive mode.

- ☒ **Use a balance of onsite and offshore resources.** Although many companies gravitate toward offshore services firms to leverage their vast offshore resources, IDC believes that the value provided onsite should not be overlooked. In fact, IDC recommends that companies maintain a balance between resources offshore and onsite in order to create a smooth flow of information between the two sets of employees. In addition, having employees of the offshore services firm onsite will demonstrate the extent to which the services firm is able to commit and invest in the relationship, ultimately beyond just the current project.

Appendix: Quality Certifications

Definitions of the quality certifications mentioned in this document follow:

- ☒ **ISO 9000** specifies requirements for a quality management system for any organization that needs to demonstrate its ability to consistently provide a product that meets customer and applicable regulatory requirements and aims to enhance customer satisfaction.
- ☒ **The Capability Maturity Model (CMM)** for software describes the principles and practices underlying software process maturity and is intended to help software organizations improve the maturity of their software processes in terms of an evolutionary path from ad hoc, chaotic processes to mature, disciplined software processes.
- ☒ **The People Capability Maturity Model (PCMM)** is a maturity framework that describes the key elements of managing and developing the workforce of an organization. It describes an evolutionary improvement path from an ad hoc approach to managing the workforce to a mature, disciplined development of the knowledge, skills, and motivation of the people that fuel enhanced business performance. The PCMM helps organizations to characterize the maturity of their human resource practices, set priorities for improving the competence of the workforce, integrate competence growth with process improvement, and establish a culture of workforce excellence.
- ☒ **The Capability Maturity Model Integrated (CMMI)** product suites process improvement models available for product and service development and maintenance and build on and extend the best practices of the CMM for Software (SW-CMM), the Systems Engineering Capability Model (SECM), and the Integrated Product Development Capability Maturity Model (IPD-CMM). CMMI best practices enable organizations to more explicitly link management and engineering activities to business objectives, expand the scope of and visibility into the product life cycle and engineering activities to ensure that the product or service meets customer expectations, incorporate lessons learned from additional areas of best practice (e.g., measurement, risk management, and supplier management), implement more robust high-maturity practices, address additional organizational functions critical to products and services, and comply more fully with relevant ISO standards.
- ☒ **Six Sigma** is a rigorous and disciplined methodology that uses data and statistical analysis to measure and improve a company's operational performance by identifying and eliminating "defects" in manufacturing and service-related processes.

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