

Case Study

Driven by Quality, Wipro Improves Net Promoter Score (NPS) with CMMI® V2.0



The Business Need

“Quality, like integrity, is simply non-negotiable,” notes Wipro Chairman Azim Premji. This phrase sets the entire organization’s standard benchmark on how each team member views quality. It is an essential part of Wipro’s overall business strategy and plays a vital role in their results and how they approach continuous improvement.

As a leader in global information technology, consulting, and business process services, Wipro has three key business objectives at the organizational level: increase customer satisfaction, improve operating margin, and grow revenue. As part of their need to meet these objectives and align with quality expectations, Wipro identified several specific areas of focus:

- Productivity improvement
- Effort adherence
- Fatal functionality defects reduction
- Post-delivery defect reduction
- Reduction of defect rejection in testing
- Bug fix productivity improvement
- Test case development and execution improvement

The Solution

Wipro has been a leader in quality and an early adopter of Capability Maturity Model Integration (CMMI) practices since its inception, using it to fuel their organizational growth over the years. Wipro was the world’s first company to be assessed at Maturity Level 5 for the Software Engineering Institute’s first version of the Capability Maturity Model (CMM) in the late 1990s. It also was one of the first IT companies to adopt Six Sigma methodology and Lean practices, institutionalizing

Company Background

Wipro Limited (NYSE: WIT, BSE: 507685, NSE: WIPRO) is a leading global information technology, consulting, and business process services company.

They harness the power of cognitive computing, hyper-automation, robotics, cloud, analytics, and emerging technologies to help their clients adapt to the digital world and succeed in business. A company recognized globally for its comprehensive portfolio of services, strong commitment to sustainability, and corporate citizenship, Wipro has over 160,000 dedicated employees serving clients across six continents. Together, they discover ideas and connect the dots to build a better and bolder future.

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Lean 2.0, CMMI, and Cognitive Quality Management System (QMS) bots to improve their customers' digital experience. When CMMI V2.0 was introduced, Wipro knew it would be the next step in their quality improvement journey. Designed to optimize business performance in an ever-changing global landscape, CMMI V2.0 is a proven set of global best practices that enables organizations to build and benchmark the key capabilities that address their most common business challenges.

As they always do when faced with new best practices that could help them improve, Wipro quickly determined the relevancy of CMMI V2.0, how to tailor it to their organizational processes, and the steps needed to embrace and institutionalize the improvements to make them sustainable.

CMMI V2.0 contains multiple customized views that apply to different business environments, enabling organizations to create a view of the model that meets their specific performance improvement needs. Wipro felt that the Development View, which helps organizations improve key capabilities in the development of products, components, and services, would best fit their needs. They conducted a CMMI V2.0 Development View Benchmark Appraisal, targeting Maturity Level 5 with a focus on increased productivity, defect detection, and predictable delivery for development, testing, maintenance projects, and support functions for the entire organization.

Wipro aligned the Critical to Quality (CTQ) metrics of their CMMI V2.0 adoption to meet their business objectives of increasing customer satisfaction, improving operating margin, and growing revenue. For example, they linked metrics related to reducing defects to increasing customer satisfaction and aligned metrics related to productivity related to improving their operating margin.

Devender Malhotra, Vice President and Global Head of Quality and Enterprise Risk Management at Wipro notes of their journey, "Wipro has once again proven that we are the pioneers in quality processes. The CMMI journey has helped us develop a culture of process transformation with predictable delivery." Developing processes that met the intent of CMMI practices ensured that Wipro had a structured and disciplined way of delivery that increased consistency and organizational success. CMMI V2.0 ensured that Wipro remained on their journey of continuous improvement to create a culture of uncompromising quality.

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Results

With CMMI V2.0, Wipro has been able to better support their clients on their transformational journeys. This improvement is reflected in their Net Promoter Score (NPS), which improved 486 basis points from 2017 to 2018. Wipro's President and Chief Operating Officer Bhanumurthy B. M. says that "the CMMI journey has been instrumental in achieving a high level of customer satisfaction and will ensure that Wipro remains an industry leader in quality."

Specifically, CMMI V2.0 enabled Wipro to:

- Significantly improve Critical to Quality (CTQ) metric and business objective performance
- Identify root causes and implement processes to sustain revenues, retain customers, and increase growth, customer satisfaction, and operating margins
- Strengthen Wipro's processes through a focus on Governance
- Identify methods to sustain benefits by focusing on process sub-metrics, action item management involving clients, and significant changes in resource management practices

Wipro's "aha moment" throughout their continuous improvement journey involved using Machine Learning (ML) and Artificial Intelligence (AI) techniques for building predictive models based on historic project data. This gave project managers:

- Additional support to achieve required CTQ metric goals
- More control of CTQ metrics
- Increased anticipation of business objectives from the prediction model

Senior managers are also now able to use statistical analysis to make decisions, ensuring that organizational conclusions are based on data analysis and not on qualitative comments.

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**Bhanumurthy B. M.
President and Chief Operating
Officer, Wipro**



The penetration level of work completed by bots in fixed price projects improved from 3.0% in Q2 (FY 2018-19) to 6.7% in Q3 (FY 2018-19). The appraisal team applauded Wipro's unique usage of intelligent automation, their ability to optimize project delivery, and their utilization of cutting-edge technologies like neural networks and Machine Learning to optimize processes in conjunction with CMMI. Their CMMI Maturity Level 5 appraisal highlighted Wipro's innovation and reflected the organization's particular regard for quality. As Wipro President and COO Bhanumurthy B. M. reiterates, "this appraisal showcases Wipro's commitment to deliver high-quality solutions, great customer experience, and strong alignment of our processes with business objectives."

Key Takeaways

Focus Internally to Improve the Client Experience

Wipro's experience demonstrates that the best way to improve the external client experience is to improve the organization internally. Internal changes set the company's culture and priorities, reflecting outward towards customers to improve their every interaction with the organization.

Always Aim to Improve Quality

Quality is the sun at the center of Wipro's solar system – it is the guiding principle that has helped the organization achieve high maturity and continuous improvement. As part of their commitment to quality and innovation, Wipro has been driven to find proven solutions – like CMMI – to meet their most important objectives.

Don't be Afraid of Innovation and Change

Wipro is always ready to introduce change into the organization if it will lead to performance improvement. Wipro's early adoption of CMMI V2.0 is a case in point along with their use of cutting-edge technologies to achieve their goals. Quality is the driver and innovation that has propelled Wipro to achieve their high-quality standards.



The Wipro Quality Journey

1995-1998

- ISO 9001 certified in 1995
- World's first company to be assessed at CMMI Maturity Level 5



1999-2004

- 6 Sigma (Methodology for Continuous Improvement)
- ISO 14001
- World's first PCMM Level 5 software company
- Industry specific quality standards by way of TL 9000
- CMMI V1.1
- BS7799
- Infused Statistical rigor at Management cadre
- Software Process Achievement Award IEEE USA
- Orthogonal Arrays, DMAIC/DSSS+ frameworks launched

2005-2006

- Lean for S/W development
- Agile Adoption
- ISO 13485 for medical devices domain
- CMMI-DEV V1.1 Level 5
- ISO 27001
- ISO20000
- World's first Automotive SPICE
- AS9100

1997-2011

- OHSAS 18001
- CMMI-DEV V1.2
- Wipro Way institutionalized

2012-2019

- CMMI DEV V2.0 view
- ISO 9001 UK, China Development Center
- CMMI-DEV V1.3
- CMMI-SVC V1.3
- DMM
- TMMI ML5
- Agile Next
- Lean 2.0
- Integrated Audits
- Process Digitization
- Next Gen Delivery
- DevOps
- Cognitive QMS - Bots



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ISACA's CMMI enables organizations to elevate and benchmark performance across a range of critical business capabilities, including product development, service excellence, workforce management, data management, supplier management, and cybersecurity. For more than 25 years, thousands of high-performing organizations have achieved sustainable business success through CMMI adoption and demonstrated their ability as capable business partners and suppliers.