Enterprise Skills Layers for IT Software

The Enterprise Skills Layers framework is designed to help IT organizations rapidly reskill, redeploy, and future-proof their workforce, this framework structures employee capabilities into four interconnected layers:

- **Foundational Digital Skills (Baseline Literacy)**: Core digital fluency that underpins productivity in software development and outsourcing. This includes seamless communication, documentation, collaboration, and the ability to integrate GenAI-assisted workflows into everyday tasks.
- **Power Skills (Enduring)**: Human-centric capabilities such as communication, adaptability, critical thinking, foreign language communication, culture, behaviors, emotional intelligence, and problem-solving that enable IT professionals to thrive across diverse projects, client engagements, and cross-functional roles.
- **Industry-Based Specialization Skills (Adaptive)**: Contextual expertise that anchors engineers and outsourcing teams in sector-specific requirements. These skills ensure rapid alignment with client industries, enabling tailored solutions and faster adaptation to unique business challenges.
- **Technology-Assisted Skills (Rapidly Changing)**: Advanced digital and AI-driven competencies that accelerate innovation. This layer empowers teams to harness automation, AI-augmented systems, cloud platforms, and data analytics to deliver scalable, efficient, and cutting-edge software solutions.

The balance of knowledge and experience within the SEFIX competency framework for workforce development strategy.

This framework emphasizes agility, client-centric adaptation, and the integration of AI and automation—key differentiators for outsourcing companies competing in global markets.

Together, these layers create a holistic skillset that balances timeless human strengths with evolving industry and technology demands. Reskilling becomes fast, targeted, and sustainable, enabling quick workforce rotation, resilience, and long-term adaptability. In this way, the workforce is framed not just as adaptable, but as strategic enablers of transformation.

1. For Software Development Services

Development Business Scope	Foundational Digital Skills	Power Skills (Included Soft Skills)	Industry-Based Specialization Skills	Technology-Assisted Skills
Direct Engineering roles (Software Engineers, Software Developers, Business Analysts, IT Specialist, etc.)	~10%	~15%	~40%	~35%-
Indirect Engineering roles (Resource Officers, Program Managers, Project Managers, Delivery Managers etc.)	~10%	~20%	~40%	~30%

Explanation of the Difference in Weight (%) for Technology-Assisted Skills and Power Skills

- **Technology-Assisted Skills:** In software development environments, **Technology-Assisted Skills** are weighted at **35%** because teams typically operate with a high degree of autonomy in selecting and adopting tools.
    - Engineering roles can freely leverage a wide and evolving ecosystem of frameworks, platforms, automation tools, and AI-assisted solutions.
    - This flexibility enables continuous optimization of workflows, faster innovation, and deeper technical experimentation, making tool proficiency a critical success factor.
- **Power Skills**: Similar contexts, **Power Skills (including Soft Skills)** are weighted at **20%** because communication and collaboration are primarily centered within internal teams, with only occasional interaction with clients or external stakeholders. While skills such as teamwork, problem-solving, and clear communication remain important, the scope of interaction is typically more controlled, culturally aligned, and less complex.

2. For Software Outsourcing Services

Sourcing Business Scope	Foundational Digital Skills	Power Skills (Included Soft Skills)	Industry-Based Specialization Skills	Technology-Assisted Skills
Direct Engineering roles (Software Engineers, Software Developers, Business Analysts, IT Specialist, etc.)	~10%	~20%	~40%	~30%-
Indirect Engineering roles (Resource Officers, Program Managers, Project Managers, Delivery Managers etc.)	~10%	~25%	~40%	~25%

Explanation of the Difference in Weight (%) for Technology-Assisted Skills and Power Skills

- **Technology-Assisted Skills:** In software outsourcing contexts, the weighting is reduced to **30%** due to **client-imposed constraints on tools and technologies**.
    - Outsourcing teams are often required to adhere to predefined technology stacks, security policies, compliance standards, and approved toolchains specified by clients.
    - As a result, there is less opportunity to explore or integrate diverse tools, and the emphasis shifts more toward adaptability, process alignment, and delivery within given constraints rather than tool-driven innovation.
    - Therefore, the difference in weighting reflects the **degree of technological freedom versus restriction**: higher in independent development environments and more limited in outsourcing scenarios.
- **Power Skills**: Similar contexts, the weighting increases to **25%** due to the significantly higher demand for cross-cultural communication, stakeholder management, and client-facing interaction.
    - Outsourcing professionals frequently engage with multiple global clients, distributed teams, and diverse business environments. This requires stronger capabilities in communication clarity, adaptability, negotiation, expectation management, and professional etiquette across different time zones and cultures.
    - Therefore, the increased weighting reflects the greater complexity and critical importance of interpersonal effectiveness in outsourcing scenarios, where success depends not only on technical delivery but also on the ability to build trust, manage relationships, and ensure alignment with a wide range of external stakeholders.

IT Software Development & Outsourcing

IT Software Development & Outsourcing Skills

- ├─ Foundational Digital Skills (Baseline Literacy)
- ├─ Power Skills (Enduring)
- ├─ Industry-Based Specialization Skills (Adaptive)
- └─ Technology-Assisted Skills (Rapidly Changing)

1. Foundational Digital Skills

Baseline Literacy | Essential digital fluency enabling productivity, communication, documentation, collaboration, and foundational GenAI-assisted work for all IT outsourcing professionals. These skills form the minimum competency required to participate effectively in distributed development environments.

Lifecycle: <5 years - Tools & digital platforms evolve steadily; GenAI reshapes workflows every 1–2 years.

Why Upskilling/Reskilling? Digital collaboration platforms, office tools, and GenAI-assisted workflows evolve quickly. Baseline fluency is mandatory in distributed global delivery.

Foundational Digital Skills

- ├─ Digital Productivity Tools
- │ ├─ Word processing & documentation
- │ ├─ Spreadsheet modeling & analysis
- │ └─ Presentation creation & storytelling
- │
- ├─ Communication & Collaboration Tools
- │ ├─ Email professionalism
- │ ├─ Virtual collaboration (Teams/Zoom/Meet)
- │ └─ Shared workspaces, chat & agile boards
- │
- ├─ GenAI Productivity Use
- │ ├─ Prompting fundamentals
- │ ├─ AI-assisted summarization & drafting
- │ └─ AI-supported documentation & meeting notes
- │
- ├─ Information & Data Literacy
- │ ├─ Search & verification skills
- │ ├─ File management & versioning basics


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│  └─ Digital hygiene & online safety
│
└─ Language Literacy
   ├─ English (mandatory for IT outsourcing)
   ├─ Optional foreign languages (JP/KR/DE)
   └─ Technical documentation comprehension
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2. Power Skills (Included Soft Skills)

Enduring | Human communication, collaboration, emotional intelligence, leadership, reasoning, compliance, foreign language communication, cultural intelligence, workplace behaviors, and discipline — evergreen strengths that scale with technology. These skills change slowly, survive technology shifts, and are foundational for all roles.

Lifecycle: <5 years - Human capabilities are stable but must adapt to global delivery, remote work, and AI-mediated collaboration.

Why Upskilling/Reskilling? Global outsourcing requires excellent communication, stakeholder interaction, discipline, and adaptability across diverse clients and teams.

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Power Skills (Included Soft Skills)
├─ Communication
│  ├─ Executive & stakeholder communication
│  ├─ Technical → non-technical translation
│  └─ Foreign language communication (EN/JP/KR/DE)
│
├─ Collaboration
│  ├─ Cross-function & cross-domain teamwork
│  ├─ Business–IT–vendor coordination
│  └─ Multi-timezone remote collaboration
│
├─ Emotional Intelligence
│  ├─ Empathy & interpersonal awareness
│  ├─ Conflict de-escalation
│  └─ Relationship & trust building
│
├─ Cultural Intelligence
│  ├─ Respect for multicultural norms
│  ├─ Adapting to client country expectations
│  └─ Global team interaction etiquette
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- Workplace Behaviors
  - Professional ethics & integrity
  - Accountability, ownership, self-management
  - Respectful, inclusive and reliable conduct
- Critical Thinking
  - Root-cause & structural problem solving
  - Bias/risk identification
  - Decision-making using evidence & logic
- Learning Agility
  - Rapid adoption of new domains/tools/frameworks
  - Continuous professional learning mindset
  - Adaptation to fast-changing environments
- Professional Discipline
  - Time & priority management
  - Documentation quality & rigor
  - Compliance with standards & governance

3. A. Industry-Based Specialization Skills - IT Software Development

Adaptive | Core conceptual & functional competencies required for software engineering, IT outsourcing delivery, domain consulting, quality assurance, architecture, and solutioning. These skills evolve with industry practices but remain stable across tool changes.

Lifecycle: 2.5–5 years - Core engineering & outsourcing concepts evolve with new methods, standards, architectures, and client industry changes.

Why Upskilling/Reskilling? Frameworks, standards, methodologies, and customer expectations evolve with modern engineering practices and global delivery models.

3.1 Functional / Process Skills

Functional & Process Skills

- Software Development Lifecycle (SDLC)
- Testing & Quality Engineering Processes
- Requirements Engineering
- Architecture & Design Processes
- DevOps & Delivery Processes

├─ IT Service Management (ITSM)
├─ Data Lifecycle Management
├─ Safety, Security & Compliance Processes

3.2 Conceptual & Methodological Techniques

Conceptual & Method Techniques
├─ Modeling & Simulation
├─ Algorithmic Thinking
├─ Statistical Reasoning
├─ Visualization Techniques
├─ Signal Processing Concepts
├─ Control Theory Concepts
├─ Test Design Techniques
│ ├─ Requirements-Based Testing
│ ├─ Risk-Based Testing
│ └─ Data-Driven Testing

3.3 Enterprise Automation & Platform Concepts

Enterprise Automation & Platform Concepts
├─ ERP Concepts & Processes
│ ├─ Enterprise process integration
│ ├─ Finance / Supply Chain / HR process modeling
│ ├─ Master data management concepts
│ ├─ ERP configuration vs customization principles
│
├─ RPA Concepts & Processes
│ ├─ Business process automation design
│ ├─ Task vs process automation
│ ├─ Exception handling strategies
│ ├─ Human-in-the-loop automation
│
└─ Low-Code / No-Code Concepts
├─ Visual application modeling
├─ Declarative logic & rules
├─ Citizen development governance

├─ Integration-first design

3.4 Language Skills (Human Languages)

Human Language Skills

├─ English (Business / Technical)

├─ Japanese (Business / Engineering)

├─ Korean (Business / Engineering)

├─ German / French / Others

└─ Technical documentation literacy

3.5 Industry & Domain Knowledge

Industry & Domain Knowledge

├─ Automotive Engineering Concepts

├─ Embedded Systems Fundamentals

├─ Cloud Computing Concepts (IaaS / PaaS / SaaS)

├─ Finance & Banking Domain Concepts

├─ Manufacturing & Industry 4.0

└─ Healthcare / Telecom / Energy Domains

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3.1 IT Software Outsourcing Functional Processes

IT Outsourcing Processes

├─ Client Engagement & Transition Management

├─ Requirements Analysis & Scope Definition

├─ Solution Design & Technical Specification

├─ Software Development & Integration

├─ Testing & Quality Assurance

├─ Release, Deployment & Handover

├─ Application Support & Maintenance

└─ Service Performance & Delivery Management

3.2 Governance, Risk & Compliance Processes

Governance, Risk & Compliance Processes

├─ Delivery Governance & Control
├─ Project & Program Risk Management
├─ Information Security & Data Protection
├─ Contractual & SLA Compliance
├─ Regulatory & Client Policy Alignment
├─ Change & Configuration Management
└─ Audit, Review & Delivery Assurance

3.3 Software Engineering & Delivery Conceptual Techniques

Conceptual & Engineering Techniques

├─ Software development lifecycle concepts
├─ Agile & iterative delivery principles
├─ Requirements & backlog management concepts
├─ Architecture & integration principles
├─ Estimation & capacity planning techniques
├─ Defect prevention & quality engineering concepts
└─ Delivery performance & productivity analysis

3.4 IT Outsourcing Systems & Delivery Process Concepts

IT Outsourcing Systems & Process Concepts (Conceptual / Process-level, tool-agnostic)

├─ End-to-end software delivery lifecycle
├─ Onsite–offshore & distributed delivery models
├─ Dev–Test–Ops collaboration workflows
├─ Knowledge transition & documentation processes
├─ Incident, issue & change management workflows
├─ Client system & data integration principles
└─ Quality-by-design & auditability in outsourcing delivery

3.5 IT Software Outsourcing Domain Knowledge

Domain & Industry Knowledge

├─ Enterprise application landscapes
├─ Client industry domains (**banking, retail, healthcare, etc**.)
├─ Managed services & outsourcing models

├─ Global delivery & shared services models
├─ Software product vs service delivery models
└─ Vendor ecosystem & partner management concepts

3.6 Language Skills (Human & Professional Languages)

Advanced Foreign Language Skills
├─ Foreign English for Business / Technical
├─ Client & regional delivery languages
├─ Software engineering & delivery terminology
└─ Technical, functional & delivery documentation literacy

4. Technology-Assisted Skills – IT Software Tools & Systems

Rapidly Changing | Hands-on, tool-driven, version-specific technical skills that power real software development and outsourcing delivery. These skills evolve rapidly and require continuous reskilling.

Lifecycle: <2.5 years - Tools, frameworks, languages, cloud services, and automation platforms change rapidly (fastest obsolescence).

Why Upskilling/Reskilling? Tools, frameworks, languages, cloud platforms, CI/CD, and automation ecosystems evolve extremely fast in modern software delivery.

Technology-Assisted Skills
├─ Programming Languages & Frameworks
│ ├─ Java, Python, C#, JavaScript/TypeScript
│ ├─ Spring, .NET, Node.js
│ └─ React, Angular, Vue
│
├─ Cloud & DevOps Tools
│ ├─ AWS/Azure/GCP services
│ ├─ Docker, Kubernetes
│ └─ Jenkins, GitHub Actions, GitLab CI
│
├─ Data & Integration Tools
│ ├─ SQL/NoSQL databases
│ ├─ API management platforms
│ └─ Stream processing tools
│
├─ Testing Tools & Frameworks

- Selenium, Cypress, Playwright
- JMeter, Postman
- Test automation frameworks

- Collaboration & Delivery Toolchains
  - Jira, Confluence
  - Git, Bitbucket, GitHub
  - Code review tools

- Build, Test & Delivery Tools
  - CI/CD & automation tools
  - Test management & automation tools

- Operations & Support Tools
  - Application monitoring & logging tools
  - Incident & service management systems

- Project & Delivery Management Tools
  - Agile & project tracking tools
  - Resource & capacity management tools

- Platforms & Product Stacks
  - ERP Products (e.g., SAP S/4HANA, Oracle ERP)
  - RPA Products (e.g., UiPath, Automation Anywhere)
  - Low-Code Platforms (e.g., Power Platform, Mendix)

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- AI-Assisted IT Tools
  - AI-assisted coding & review tools
  - Delivery analytics & risk prediction tools
  - Knowledge, documentation & support assistants

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The framework emphasizes the balance of knowledge and experience within the SEFIX competency framework for workforce development strategy, ensuring responsible application and alignment with long-term organizational goals.

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