PwC Offices in Vietnam

Hanoi:
16th Floor, Keangnam Hanoi Landmark 72,
Pham Hung Road, Nam Tu Liem District
Hanoi City
Tel: +84 24 3946 2246

Ho Chi Minh City:
8th Floor, Saigon Tower
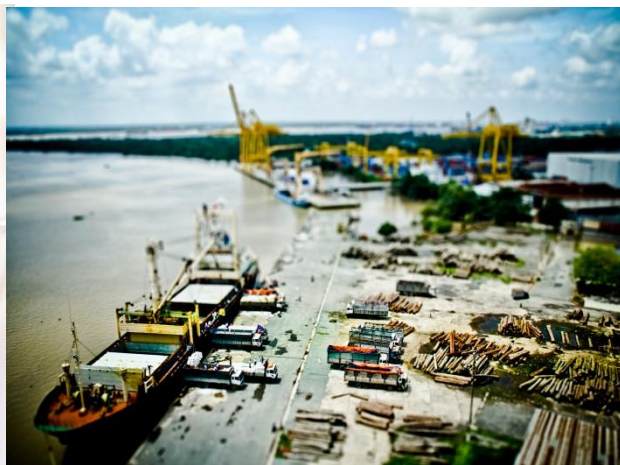29 Le Duan Street, District 1
Ho Chi Minh City
Tel: +84 28 3823 0796

pwc

Information Technology Consulting Services

pwc

Banking and IT Trends

In today's world, IT is a vital tool for facilitating business transformation. Reaping the most value from technology investments in order to remain competitive is one of the highest priorities facing business leaders today. With an experienced professional team, we are focusing on helping our clients, especially in the Banking sector, in business critical projects. The banking environment has become more and more competitive. To be able to survive and grow in this fast changing market environment, banks need to adopt the latest technologies, which is being perceived as an enabling resource that can help in developing learner and more flexible structures that can respond quickly to the dynamics of a fast changing market scenario. It is also viewed as an instrument of cost reduction and effective communication with people and institutions associated with banking business. Presented below is an overview of key roles of IT in the Banking Industry, Banking trends as well as Banking Technology trends. These are used as a baseline in providing our services to help banks achieve the targets mentioned above.

Innovation
- New markets, products, services
- Efficient delivery channels
- E.g. online electronics banking, mobile banking and internet banking

Operation transformation
- Moving from a back office function to a prime assistant
- Strengthening and standardizing banks infrastructure in respect of security, communication and networking
- Achieving inter branch connectivity

Key roles of IT in Banking Industry
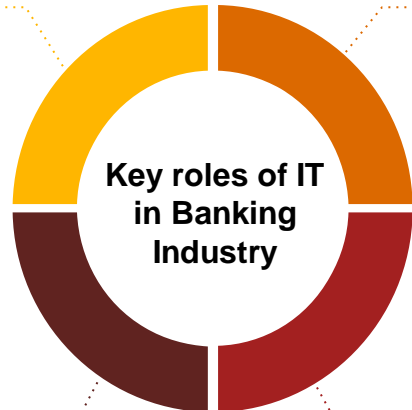
Financial activity
- Increasing activity across the globe
- Reducing cost of global funds transfer

Customer expectation
- Satisfying the demand of instant, anytime and anywhere banking facilities
- Managing funds in real time and most importantly, 24 hours a day, 7days a week
- Cash withdrawal from any branch/ATM
- Online purchase of goods and services including online payment

Banking trends:

- Developing a customer-centric business model
- Optimizing distribution
- Simplifying business and operating models
- Obtaining an information advantage
- Enabling innovation, and the capabilities required to foster it
- Proactively managing risk, regulation and capital

Emerging trends in Banking Technology:

- IT implementation and management
- IT for internal effectiveness
- IT investment management
- Managing IT risk
- IT Governance
- IT for business innovation

About PwC

PwC Global Network

- A leading professional service network
- Over 276,000 people in 157 countries
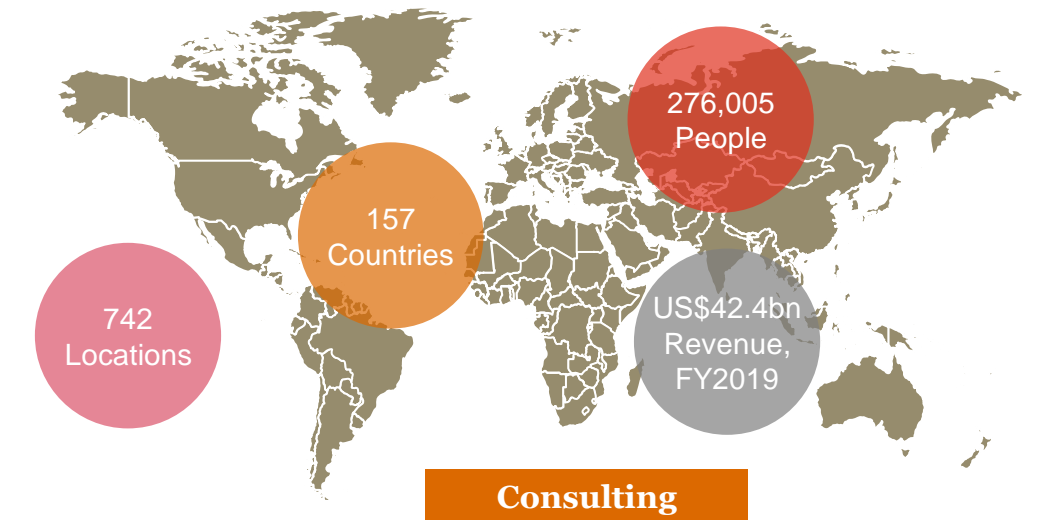- Organized based on three platforms: people, knowledge and approach

PwC Vietnam

Established in Hanoi and HCMC in 1994. A multi-disciplinary team of 1000 people with expertise across a range of skill sets and industries.

We provide professional services including audit & assurance, tax & legal, deals and consulting services across multiple industries.

PwC Technology Services

With thousands of consultants in 157 countries, we can deliver tailored strategic, operational, technical and financial solutions to your business.

276,005 People

157 Countries

742 Locations

US$42.4bn Revenue, FY2019

Consulting

	Consulting	
Strategy		Post-merger Integration
Cost and Performance Management		Finance Function Effectiveness
Governance, Risk and Compliance		Internal Audit
Continuous Audit and Monitoring		Operations and Supply Chain Management
People & Change		Financial Services Consulting
Sustainability		Information Technology: • IT Strategic Plan • CBS Review & Recommendation • IT Security • IT Governance • PPM Health Check • ERP & Business Application Packages • Deal Support
Forensic Services		

Our Information Technology Consulting

Our Commitment

Technology is an important enabler of business transformation. At PwC, Technology Consulting is one of the four key consulting pillars besides Strategy, Management, and Risk Consulting.

To assist you in getting value from technology investments, we bring together the skills to deliver improvements in processes, as well as knowledge in IT strategy, IT architecture and design, enterprise applications, sourcing, IT risk, project management and IT operations management.

Our Technology Consulting Practice helps you:

- Recognize the need to **better align IT to the organization's needs**
- Achieve a **well managed portfolio of IT initiatives**
- Realize **business benefits in a timely fashio**n
- Assist in **assessing project risks and control**
- **Comply with regulatory matters** that have uncovered operational issues in IT and information security
- **Enhance your internal audit functions** so that they align to your company's strategy and risk
- **Reduce costs of compliance and risk management**

Technology Consulting Core Services				
IT Strategic Plan	**CBS Review & Recommendation**	**IT Security**	**IT Governance**	**Program & Project Management (PPM) Health Check**
We define an IT strategy and roadmap, then select, design, and implement modern and innovative solutions	We find out the current state of your Core Banking system, and identify gaps, components to be changed or upgraded	We understand cyber challenges, adapt and respond to the risks in your business ecosystem, protect assets, and help comply with regulatory requirements	We propose the IT governance structure, processes and standards required to manage, monitor and control IT within your business	We assist you to review and assess projects and programs' health status and provide solutions to better manage and deliver projects and programs

Our Core Services

IT Strategic Plan

A well-prepared IT Strategic Plan will resolve many concerns regarding IT planning and implementation:

- IT investments better aligned with changing business needs
- IT performance measured
- Clear annual IT investment plan
- Optimized allocation of capital
- Increased ability to execute
- Better utilization of resource assets
- Increased employee satisfaction
- A clear view on where the bank is today

CBS Review and Assessment

Core Banking System (CBS) review service will help you to:

- Find out the current state of your CBS and whether it is enough to deliver the business strategy
- Find out gaps between the current state of your CBS and a good CBS
- Identify what components of the current CBS should be changed and to what extent in order to become a good CBS
- Lay the foundations for a future roadmap to improve/ utilize the current CBS

IT Security

We help organizations understand their dynamic cyber challenges, adapt and respond to the risks inherent in their business ecosystem, and protect the assets most critical to their brand, competitive advantage and shareholder value as follows:

- Adopt a strategic approach to security planning and assessment;
- Assess and provide recommendations about key security domains;
- Improve risk management and compliance
- Protect privacy and sensitive business data;
- Manage the potential impact from unplanned security events

IT Governance

IT Governance consulting service will help you to:

- IT governance structure and functions are aligned to each other which will enable and support the objectives and priorities of the business
- Establish an IT environment to manage, control and monitor effectiveness and efficiency
- Proactively adapt to compliance requirements of the State Bank of Vietnam and international standards e.g. CoBIT, ITIL.

PPM Health Check

We help clients understand how to lead and deliver complex transformation programs and manage complex portfolios of change:

- We help clients develop frameworks to ensure they **INVEST** in the right projects
- We help clients to **EXECUTE** effectively and to mature their delivery capability
- We help clients to better manage and **REALIZE** the intended benefits of those investments

IT Strategic Plan

Vietnamese banks today are facing many challenges including increasingly competitive markets among local, foreign, and non-bank companies; highly aggressive bank strategies, more demanding customers and increasingly strict regulations.

All Vietnamese banks, especially the medium sized ones, need effective and efficient IT support to grow. Moreover, IT is becoming a driver for Vietnam banks to gain competitive advantages.

We have assembled a team of experts with deep and extensive knowledge and experience of developing IT Strategic Plans to support you in this project. We have also completed many consulting projects related to IT Strategic Planning, IT Transformation Planning and IT Plan Execution for many banks and financial institutions, globally and in Vietnam.

A high-quality roadmap delivers up to

10% returns

through a combination of time savings, reduced operating costs, and better investment decisions.
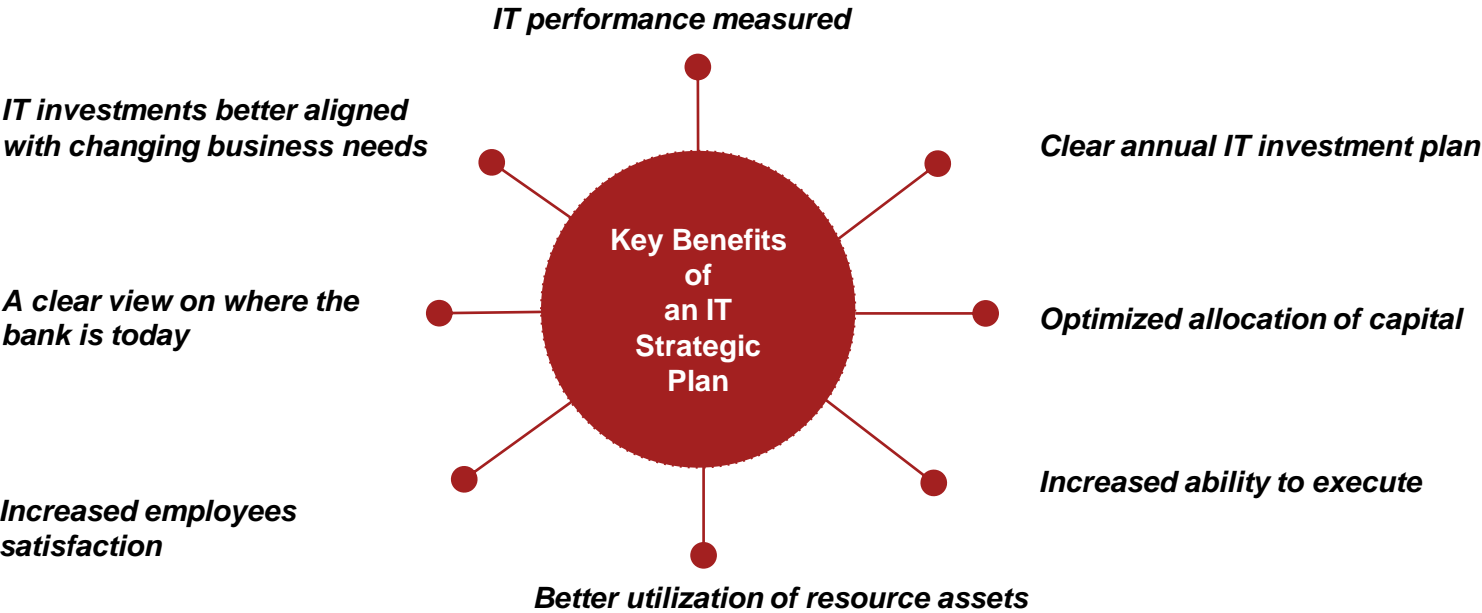
Source: Technology Review , IT Roadmap Builder: A Smarter Way to Make IT Investments

How we help our clients

An IT Strategic Plan sets out the IT "future state" and a clear roadmap and necessary resources to achieve the "future state". Based on a deep understanding of Vietnamese bank's needs, and PwC's methodologies (*Transform© Methodology & IT Strategy Development Framework*), we propose an IT Strategic Plan development service which provides banks with a comprehensive and effective IT Strategic Plan for the next three to five years:

Scope of work:
1. **Review and assess the IT current state:**
   * Overall review of IT systems & infrastructure
   * Overall review of IT organization & management
2. **Develop IT future state, roadmap & investment plan**
   * Determine the IT future state
   * Propose key IT projects to be implemented
   * Determine projects' priorities and implementation roadmap
   * Develop IT Investment Plan
   * Recommend IT Strategic Plan execution

Benefits to clients

IT performance measured

IT investments better aligned with changing business needs

Clear annual IT investment plan

A clear view on where the bank is today

Key Benefits of an IT Strategic Plan

Optimized allocation of capital

Increased employees satisfaction

Increased ability to execute

Better utilization of resource assets

IT Security

Operating in the global business ecosystem requires organizations to think differently about their security program and investments -- information security has progressively become more complex and challenging.

It has also become a discipline that demands pioneering technologies and processes, a skill set based on counterintelligence techniques, and the unwavering support of top executives.

Proactively addressing the cyber threats that face organizations every day demands foundational security elements be in place before incremental and enhanced cyber security capabilities and solutions can be implemented.

PwC offers numerous solutions that help organizations understand their dynamic IT Security & Risk challenges, adapt and respond to the risks inherent in their business ecosystem, and protect the assets most critical to their brand, competitive advantage and shareholder value.

How we help our clients

We offer numerous solutions to help organizations understand their dynamic cyber challenges, adapt and respond to the risks inherent in their business ecosystem, and protect the assets most critical to their brand, competitive advantage and shareholder value.

- **IT Security Risk Assessment:** Assess current state of security in organization in alignment with international best practice, e.g. . ISO 27001, PCI-DSS, COBIT, ITIL etc.
- **Security Strategy & Organization:** Develop security strategy in alignment with the organization's overall IT and business strategy, and incorporate security into the organizational structure.
- **Security Architecture:** Provide a single approach that incorporates multiple frameworks to allow the organization to develop a unified approach to Security Architecture.
- **Vulnerability & Penetration Testing:** Perform vulnerability scan and simulate real-life attacks on IT infrastructure and application systems.

Benefits to clients

- A **structured approach** to your information security management based on industry best practice.
- **Compliance** with regulatory requirements and international standards on security and risks.
- Aligning information security to improve business performance through **security strategy** and planning solutions.
- Protecting and securing information assets through **threat** and **vulnerability management** solutions.
- Proactively manage today's complex security environment to reduce risk and meet compliance objectives through **integrated security management**.

CBS Review and Assessment

The CBS is one of the most important systems to a bank. An aging and impaired CBS will have negative effects on a bank's business and operation.

Therefore, reviewing CBS is very important and necessary for a bank to exactly know the current state of CBS, and identify what components of the current CBS should be changed and to what extent in order to become a good CBS to win market share from competitors.

Given a wide range of consultancy services from strategy to execution, PwC commits to establish and maintain a sustainable partnership with our clients in order to bring long-term value to our clients in utilizing the current CBS.

A new, improved CBS will help to reduce operational cost to **36%**, cost of deposits to 20% and IT management to **4%**.

Source: IBM Centre for Applied Insights

A new CBS, which is reviewed and recommended, helps to increase revenue per customer to **24%** and customer acquisition to **16%**.

Source: IBM Centre for Applied Insights

How we help our clients

Given our in-depth understanding of the needs of banks in Vietnam, we have developed independent consulting service of CBS review and assessment.

Scope of work:

1. **Review** and **assess the current state;**
2. **Identify** a suitable CBS model and **propose** improvement solutions.

The above scope of work will cover the following three aspects:

- **Intrinsic capacity** of the system**;**
- **Level** of exploitation and use of the system;
- **External impact** and **effect** on sustainable development of the system.

1. Review and assess the and Propose improving solution

Intrinsic Capacity of the system

Level of exploitation and use of the system

External impact and effect on sustainable development of the system
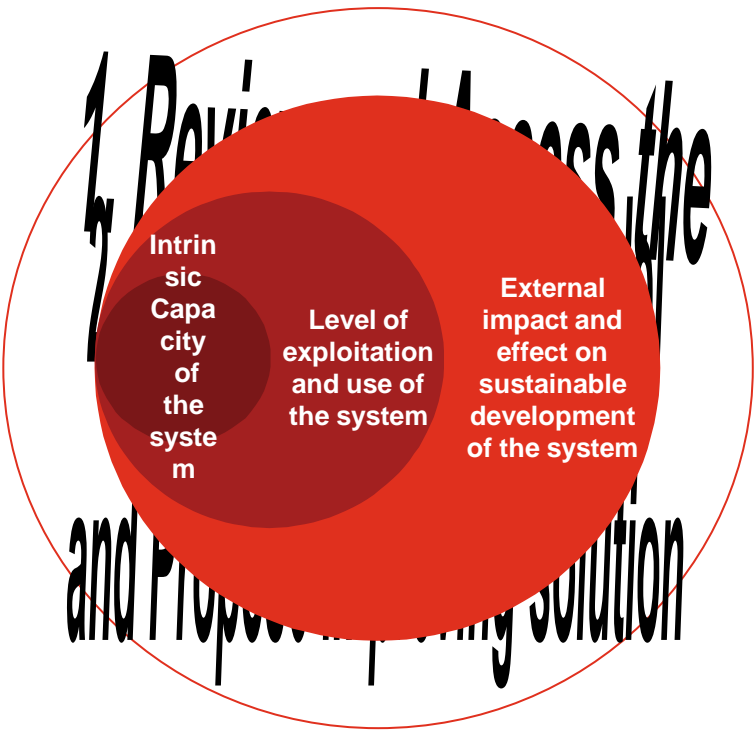
Benefits to clients

Reviewing the CBS will bring you a range of tangible benefits:

- Find out the **current state** of your CBS and whether it is sufficient to deliver the business strategy
- Find out **gaps** between the current state of your CBS and a good CBS
- Help you to identify **what components of the current CBS should be changed** and to what extent in order to become a good CBS
- Lay the **foundation** for a future roadmap to improve/ utilize the current CBS

Results from the CBS review will lay the **foundation** to help you **re-structure** or **re-arrange CBS processes/architecture** to get **more alignment** between them.

13

14

IT Governance

Why IT governance?

IT governance is the responsibility of the board of directors and executive management.

It is an integral part of enterprise governance and consists of the leadership and governance structures and governance processes that ensure that the organization's IT sustains and extends the organization's strategies and objectives.

IT Governance will primarily focus on the **strategies, structure and processes** and **standards**.

PwC's IT governance consulting service is to support you in setting out the foundation - IT governance structure, processes and standards - to manage, control and monitor IT within the business.

Firms with above-average IT governance performance had more than **20%** higher profitability than firms with poor governance.

Source: Centre for Information Systems Research at MIT studied 256 enterprise in 23 countries

15

How we help our clients

PwC's IT governance consulting service provides banks with a comprehensive IT governance structure, processes and standards required to **manage, monitor and control IT within business.**

1.Review and assess the IT current state and performance:
- Overall review of IT strategy, structure and processes;
- Overall review of IT systems and infrastructure;
- Opinions of selected business departments on IT services and IT performance assessment.

2.Develop IT governance:
- Define key IT services and decisions;
- Propose IT governance structure;
- Propose IT governance processes;
- Propose high level IT standards;
- Recommend implementation roadmap;
- Recommend methodology for continuous improvement.

Benefits to clients

Value PwC can bring:
- Leading best practice IT governance, IT performance assessment, project management methodology and transform framework.
- A cross-functional team of experts from strategy, governance, technology and assurance combining foreign best practice and strong local capabilities.
- Recent project experience in developing and implementing IT governance model for clients in Vietnam and globally.

Benefits to client:
- IT governance structure and functions are **aligned** to, **enabling** and **supporting** the objectives and priorities of the business.
- IT environment to manage, control and monitor effectiveness and efficiency.
- Ability to proactively adapt to **compliance requirements** of the State Bank of Vietnam and international standards e.g. CoBIT, ITIL.

16

PPM Health Check

Nowadays, our clients are dealing with unprecedented change driven by factors including the pace of change, shift in global economic power, generational changes, and aging population, the digital economy and the emergence of global players disrupting traditional sectors.

The Project Management Office (PMO) sets the foundations for effective delivery…however the real benefits are seen when the PMO is mature enough to provide insights into the status of your program (Intelligent PMO).

PwC has a global team of PPM professionals who specialise in designing and delivering complex transformation programs

60% of all organisations could substantially benefit from improving the maturity of their PMO*.

*: The State of the PMO-2007-2008
A Benchmark of Current Business Practices
Center for Business Practices (CBP) Report

Nearly **70%** of organisations implementing PMOs report that project success rates have improved **significantly** as a result.

How we help our clients

" Our passion is helping our clients execute their strategy"

We assist you to review and assess projects and programs' health status and provide solutions to better manage and deliver projects and programs.

Why do you need a PPM Health Check?

Problems	How PwC can help	Benefits
• How to **plan and prepare for project implementation** but not knowing where to start • How to **identify and resolve problems** related to project scope, schedule, costs, quality, risks, human resources during project implementation • **Lack of confidence** about whether the program is on track or can deliver expected benefits • **Imbalance among project constraints** • **Ineffective and slow decision making** due to lack of appropriate information • Is there a need for a **Project Management Office** to govern and manage projects • **Risks are not properly understood**, identified and managed	• **Help develop , review, assess** Project Scope, Project Change, Project Human Resources, Project Communication, Project Risk, etc. • **Identify the root cause of the problem** and provide actionable and prioritized recommendations • Guide development of program and project management **processes and procedures to improve management** of scope, schedule, cost, quality, human resource, risk, communication & stakeholders • **Setup the program and project management framework** • **Share good practices** on program and project management • **Guide deployment of suitable methods, tools and templates** in program and project management	• **Improve capability to manage, deliver projects & programs** • **Maximize opportunity** of the program and project's success • **Minimize the cost overrun** • **Optimize** the program and project resources • **Development of suitable processes and procedures** to improve management of projects and programs • **Balance the competing project constraints,** • **Address the various needs, concerns, and expectations** of the **stakeholders** • **Better management of risks and compliance**

Scope of work:

1. **Review and analyse the current state of Program and Project Management**

2. **Assess the Program and Project Management**

3. **Develop a recommendation and solution report**

Benefits to clients

• **Improve capability to manage and deliver programs and projects**
• Development of **suitable processes and procedures** to improve management of programs and projects
• **Identify root causes** of the problem and **provide actionable solutions**
• **Optimize IT investment**
• Focused **Benefit Management**
• **Better utilization of resources**
• **Better management of risks and compliance**

PwC Capabilities

The PwC global network is at your service

Imagine the power of more than *223,000 people* sharing a common purpose: building relationships that create value for you and your business. *This is PwC*.

Powerful global networks and coverage

- PwC is one of the world's largest providers of advisory, assurance, tax and legal services. Our work with leading companies across multiple industries helps make business happen in over 157 countries around the world.

- PwC is uniquely positioned to offer clients technical resources and capability both on shore and off shore.

- We have an impressive presence all over the world and can quickly mobilize world class delivery teams

Significant delivery experience

- Staffed with highly skilled technical and professional resources

- In FY 2014, we served clients across the full spectrum of industry sectors. The largest part of our revenues – US$**13.9 billion** - lies in the Banking & Capital Markets.

PwC member firms

- We can augment the project teams utilizing the local resources from our member firms anywhere in the world.

- Our Global Delivery Model provides technical consulting services and its resources are available for servicing our clients.

Why PwC?

Understanding of your situation
- We will understand your business strategy, culture and operational processes.
- We will understand your current IT environment and know what is needed to improve your IT capabilities to ensure good support of business strategy.

Experienced in similar projects
- We have done many consulting projects related to IT areas for many banks and financial institutions, globally and in Vietnam. The experience from these projects is drawn upon to aid our effort in projects with our clients

Our team of experienced experts
- We have assembled a team of experts with deep and extensive knowledge and experience of developing projects related to IT areas to support you. This is a combination of banking experts and IT experts in order to deliver a high IT consulting product to you
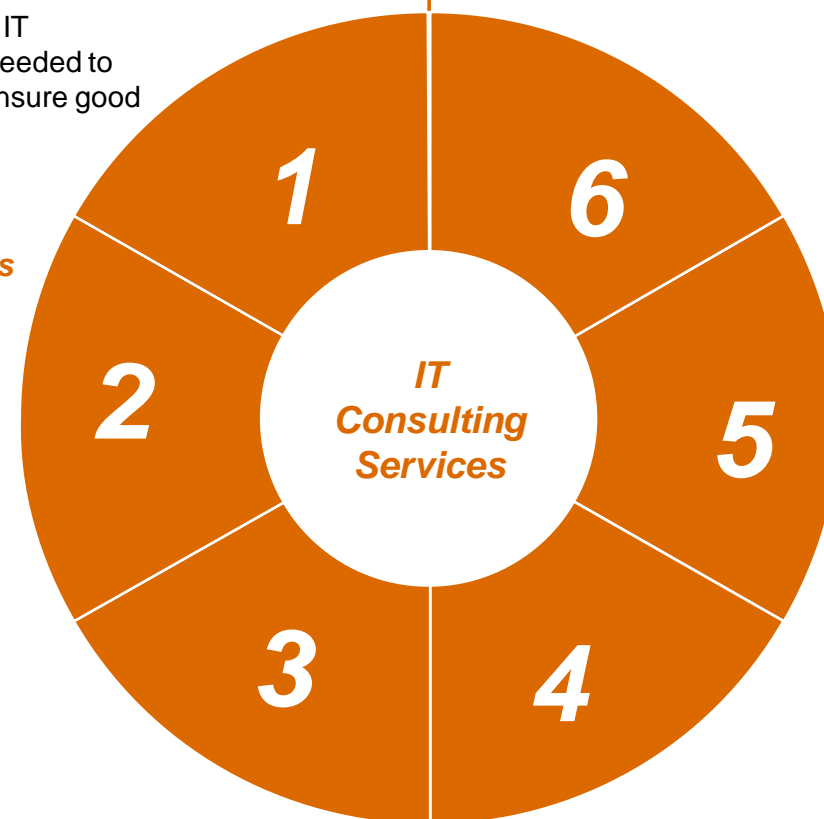
The independence and objectivity of PwC
- We do not have a partnership with any vendor and hence will not be constrained in conducting the project. All our recommendations will be made independently and objectively in your best interest

In-depth knowledge of the industry
- We have in-depth banking knowledge and are experienced in the IT industry. In addition, we are supported by experts all over the world

Proven methodology
- We provide robust methodologies that have been proven globally to meet the requirements of key activities in this project. Our approach is adjusted from these methodologies to be realistic and to sufficiently address the key challenges identified for this project

IT Consulting Services

1 6 2 5 3 4

In addition, with a wide range of consultancy services from strategy to execution, we commit to establish and maintain a sustainable partnership with our clients in order to bring long-term value to our clients

Our Experiences in the Vietnam Market

Core Banking Project

Building bid document to select vendor providing Core Banking solution, and building bid evaluation criteria

Scope of work:

We helped one of the largest commercial banks in Vietnam to select their Core Banking solution, by:

✓ Analyzing and defining business requirements, technical requirements, integration requirements and other requirements.

✓ Building the detailed requirements for the new Core Banking System.

✓ Building bid evaluation criteria.

✓ Building the Proof of Concept Scripts.

✓ Guiding the choice of the solution.

Benefits delivered to client:

From the consulting results of PwC, the bank selected the optimal new Core Banking solution.

IT Strategic Plan

Consulting in developing the IT Roadmap and Investment plan for the period 2011-2020

Scope of work:

We have added value to our client through:

✓ High-level assessment of the fitness of IT development strategy 2010-2015 with business strategy and the implementation of strategic IT projects according to IT development strategy for the period 2010 – 2015;

✓ Reviewing and assessing IT governance and management, IT architecture and IT system, IT organization and IT human resource;

✓ Setting the IT strategic vision to 2025 and IT strategic direction for the period 2014 – 2020;

✓ Completing IT strategy for the period 2014 – 2020, vision to 2025, and proposing a roadmap and implementation.

Benefits delivered to clients:

A long-term IT vision to 2025 that is consistent with the business strategy, a comprehensive strategic direction covering all aspects of IT, a complete portfolio of strategic IT projects to be implemented in the period 2014 – 2020, a roadmap and specific, measurable implementation measures to ensure the highest chance of success for IT strategic projects

IT Security

Assisting the Bank in security risk assessment

Scope of work:

✓ Review the IT governance environment including IT strategy, IT policies and procedures.

✓ Review information system and data access, IT change management, system operation activities and program development life cycle.

Benefits delivered to client:

✓ Prevented operation and system risk.

✓ Evaluated whether the current banking technology solutions managing security risk align with the current business conditions and technology trend.

✓ Review of IT systems of the bank in consideration of emerging technology and security threats, international standards and practices.

✓ Complying with regulations of SBV and other organizations.

PMO

Assist the bank in managing and monitoring controlling the implementation of the CBS

Scope of work:

We have added value to our client through:

✓ Assessing the current state of IT and CBS of the Bank;

✓ Building overall plans for implementation monitoring and project management;

✓ Supervising the CBS project management activities to monitor and review project progress and advise on key steps;

✓ Performing Quality Assurance on all key steps and deliverables of the CBS project;

✓ Monitoring and advising on implementation of each phase of the CBS project;

✓ Advising and supervising CBS project operational organization and system exploration;

✓ Driving change management activities;

✓ Supervising and advising on legal issues to facilitate dispute resolution;

✓ Performing overall Risk Management to minimize and mitigate impacts.

Benefits delivered to client:

The CBS transformation project is monitored and controlled in terms of scope, progress, quality and risk management. The benefits of the program are well-managed and realized.

For further information, please contact:

Johnathan Ooi
Partner, Consulting Services
+84 28 3823 0796
johnathan.sl.ooi@pwc.com

Le Quang Huy
Director, Consulting Services
+84 28 3823 0796
le.quang.huy@pwc.com