Non-economic benefits of standards

Shenzhen Ping An Insurance, China

Country: China

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1 Objective and organization of the case study project

1.1 Objective

In the past few years, ISO developed a methodology for the assessment of economic benefits of standards (the "ISO Methodology"). This methodology can be adapted to describe and quantify non-economic benefits of standards, which are benefits to the society and/or the environment that can be traced back in full or in part to the use of standards by enterprises.

The main objective of this case study is to determine, in a quantitative manner, the non-economic benefits organizations can derive from the use of standards in their business. Case studies provide valuable information on the impacts of standards on diverse organizations operating in different industry sectors. The information will help companies to select and use appropriate standards in their operations and may also further stimulate the engagement of enterprise managers in standardization work, and leverage standards as a means to improve the social responsibility of a company.

1.2 ISO case study project timeline

The ISO case study project on non-economic benefits in China was conducted between June and October 2013 and this report was finalized in October 2013.The project was led by the Standardization Administration of the People's Republic of China (SAC) with guidance from the ISO Central Secretariat and support of the Standardization Application Research Centre of the Shenzhen Institute of Standards and Technology (SIST), the Ping An Insurance (Group) Company of China, Ltd ("Ping An Group").

1.3 ISO case study assessment approach

This study is an assessment of the non-economic benefits of standards carried out in Ping An following the ISO methodology. The assessment was structured in several stages. Essentially, it comprised interviews with Ping An management and technical staff to obtain information for the study. First, a value chain analysis of the industry and the company was developed. Key value drivers and areas of the company most impacted by standards were then identified and selected for the assessment. Finally, operational indicators were identified to assess the impacts of standards on the activities, resulting in a quantification of the impacts of standards.

2 Introduction to the selected company

The Ping An Group was established in 1988 in Shekou, Shenzhen, Guangdong Province. The Group is the first insurance company in China with a shareholder structure. Today, it has developed into an integrated financial services conglomerate with three core businesses : insurance, banking, and investment. The Group provides comprehensive products and services in insurance, banking and investment under a unified brand through multiple channels and networks to approximately 80 million customers.

This case study focuses on the Ping An Property and Casualty Insurance Company of China, Ltd. (hereafter : " Ping An ") as the main topic of the case study.

Ping An is one of the Ping An Group's core businesses. It provides country-wide services from its 40 branch offices and over 1 800 sub-branch offices. The company has also established a network of representative agents in almost 400 cities of 150 countries and regions, developing business relationships with over 160 insurance

and reinsurance companies, including China Reinsurance, Munich Reinsurance, Swiss Reinsurance and others.

The Company's business covers all legal property insurance and international reinsurance, including motor insurance, property loss insurance, liability insurance, credit and trust insurance. It offers well over 300 different types of products to individual and commercial customers. The company has recently launched a series of new products to cater for market needs, including individual mortgage loan insurance, individual car installment loan insurance, legal insurance, responsibility insurance, accountants' responsibility insurance, doctors' responsibility insurance, and company directors'/senior executives' responsibility insurance.

3 Attitude towards standardization

Standardization is the lifeblood of insurance enterprises. Ping An pays high attention to the standardization of working processes by setting up and improving the management structure through the Ping An Standardization Committee. The latter develops a standardization strategy, formulates standardization policies, goals and plans, and carries out the "*Administrative Measures for Standardization*" and other guidance documents related to standardization. A comprehensive management and operational system lays a solid foundation for the planning, implementation and coordination of standardization from a company-wide perspective.

Historically, Ping An applied a standards-based system that focused purely on products that attempt to meet the functional needs of individual departments. This approach resulted in a phenomenon of "standards-in isolation" making it difficult to coordinate and match different standards with each other. Since 2010, in accord-

ance with ISO/IEC Guide 76:2008, *Development of service standards – Recommendations for addressing consumer issues*, GB/T 24421-2009, *Guidelines for standardization of organizations in the service sector*, and other international and national standards, and with a new view on service processes, Ping An has been improving enterprise standards by integrating thousands of insurance service standards into a comprehensive and systematic, scientific service-oriented enterprise standards system (**Figure 1)**. The default time period for standards review inside Ping An is one year. Meanwhile, to meet the needs of updating market information and of customers, Ping An timely follows the latest national policies, international and national standards, revises enterprise standards to upgrade their effectiveness and pays attention to the implementation of standards in order to achieve the maximum benefits from standards.

Ping An implemented the ISO 9001:2000 quality management system in 2001. In 2012, Ping An was graded " AAAA ", the top grading for " Good Behavior in Standardization ". This is an affirmation by the Chinese government of Ping An's exploration of service standardization customized for the characteristics of the insurance industry, driven by the objective to meet real market needs. This is a milestone in the development of standardization in the Chinese insurance and finance industry. In the same year, Ping An passed successfully an expert review of national standardization projects in the insurance service industry as the very first organization in China belonging to the finance industry. This is proof that Ping An became the leader in the insurance market on the basis of a highly-developed standards-based service system.

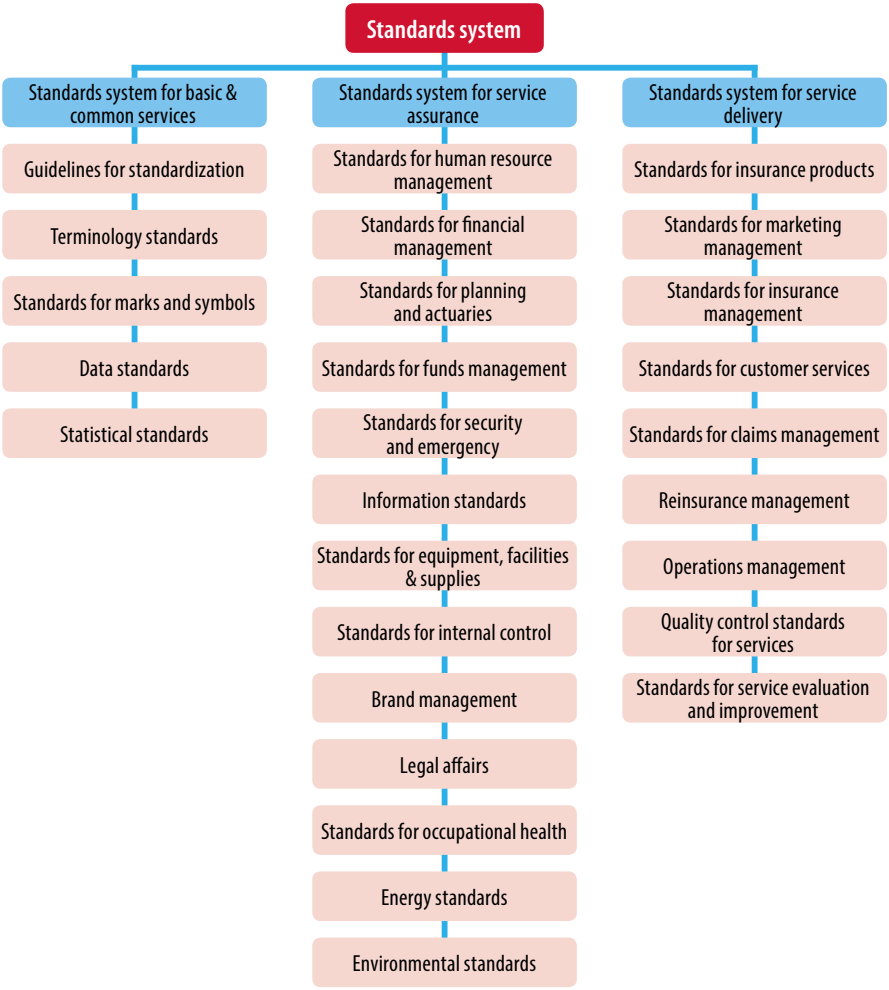

Figure 1 – Structure of the standards system of Ping An

4 Analysis of the value chain

4.1 Company value chain

All profit-generating activities in an insurance company can be integrated into its value chain. Through questionnaire surveys that were circulated in Ping An and an analysis of relevant activities, the value chain of Ping An has been identified as follows:

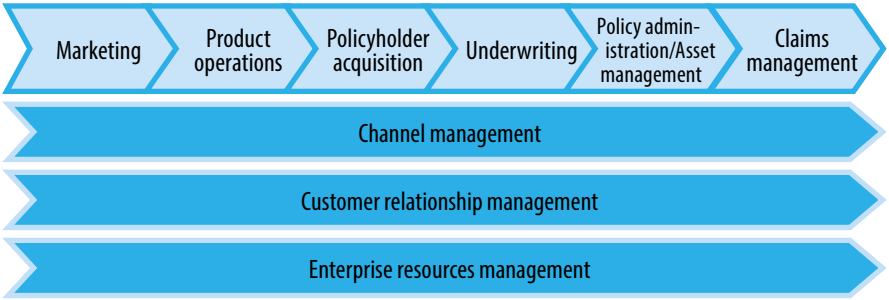

Figure 2 – Value chain of Ping An

The first layer of Marketing, Product operations, Acquisition of insurance, Underwriting, Policy/asset management and Claims management are the core business functions of Ping An, while Channel management, Customer relationship management and Enterprise resource management are management support functions. **Figure 3** gives more details:

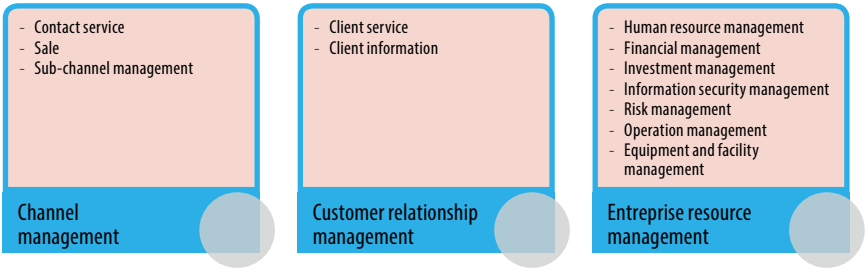

Figure 3 – Management support functions of Ping An

4.2 Key value drivers

In the ISO Methodology, a "value driver" is defined as a key organizational capability which can generate competitive advantages for enterprises. From the social aspect, the main channel to gain such an advantage is through fulfilling principles of social responsibility based on a company's own initiative. In ISO 26000, *Guidance on social responsibility*, there are seven core subjects which include Organizational governance, Human rights, Labor practices, Environment, Fair operating practices, Consumer issues and Community involvement and development.

Based on a research of relevant documents and an analysis of financial services in Ping An, the following value drivers of insurance companies have been determined (see **Table 1)**:

Value Drivers	Description
Provide customers with sustainable financial services	Guarantee business consistency of financial services through risk management to meet client's long term benefits
Ensure quality of products and services	Provide clients with a high quality of financial services, handle claims, complaints and disputes effectively and efficiently to improve the satisfaction of clients and build a better relationship with them
Ensure security of client information	Ensure security of client information through sophisticated information security management systems
Ensure good occupational health and career development for employees	Focus on the mental and physical health of employees, create a good working environment and provide them with professional career training
Ensure efficient energy saving	Manage energy reduction, reduce energy consumption and carbon emissions, help enterprises to achieve energy conservation and emission reductions

Table 1 – Value drivers of an insurance company

5 Scope of the case study

Through analysis of the value chain and the key value drivers, those business functions in the organization which have generated non-economic benefits are selected as the primary research target. During interviews with managerial staff the related business functions, given in the following **Table 2,** were identified :

Value Driver	Related Business Functions	Description
Provide customers with sustainable financial services	Enterprise resource management – Operation management	For a variety of instances, the basic unit has been identified as being the process. Inputs and outputs are stipulated together with a supplier and customer for each process as well as the relationship between them, thus establishing a comprehenisve process network
	Enterprise resource management – Risk management	The active behaviour of risk identification, estimation, assessment, control and treatment
Ensure the quality of products and services	Customer relationship management – Customer service	The insurance company provides potential and existing customers with efficacy and benefits
	Product operations	All products and services that insurers provide to the market can be obtained and used by the insured customers according to their needs so that they reduce and transfer the risk by means of insurance contracts and services and are reimbursed when necessary
	Underwriting	Based on the material facts of insurable risks, the insurers assess and categorize the risks before deciding whether to give insurance coverage and under what provisions
Ensure security of client information	Enterprise resource management – Information security management	Information security is obtained through the implementation of a set of appropriate controls. The controls can be policies, practices, procedures, organizational structures and software functions. These controls should be built to ensure that established target levels of security are met

Value Driver	Related Business Functions	Description
Good occupational health and career development for employees	Enterprise resource management – Human resource management	Human resource management is covered by enterprise resource management, which includes enrollment and promotion of employees, staff training, compensation, incentives and other measures
Energy savings with more efficiency	Enterprise resource management – Equipment and facility management	Based on a series of technical, economic, and organizational measures, this business function manages and monitors the operating conditions of equipment and facilities
	Product operations	All the products and services that the insurer provides to the market can be obtained and used by the insured customers according to their needs in order to reduce and transfer risk. When necessary, the insured can obtain a contract and services for economic compensation

Table 2 – Scope of the case study

6 Standards used in the company value chain

Through questionnaire surveys and in-depth interviews of Ping An staff, the standardization system and the application of the standards have been investigated. Within the scope of the case study, the following standards have been identified as having a major impact:

Value drivers	Business functions	Activities	Relevant standards	Standard titles
Provide customers with sustainable financial services	Enterprise resource management – Operations management	Business continuity management	ISO 22301:2012	Societal security – Business continuity management systems – Requirements
		IT Service continuity management	GB/T 20988-2007	Information security technology—— Disaster recovery specifications for information system
	Enterprise resource management – Risk management	Risk management	ISO 31000:2009 GB/T 24353-2009	Risk Management – Principles and guidelines
			ISO/IEC 31010:2009 GB/T 27921-2011	Risk management – Risk assessment techniques
		Catastrophe insurance	JR/T 0054-2009	Catastrophe insurance data acquisition norms
		Reinsurance management	JR/T 0036-2007	The reinsurance data exchange specification

Value drivers	Business functions	Activities	Relevant standards	Standard titles
Ensure the quality of product and service	Customer relationship management – Client service	Standard client service management	ISO 10001:2007 GB/T 19010-2009	Quality management – Customer satisfaction – Guidelines for codes of conduct for organizations
		Customer complaints handling	ISO 10002:2007 GB/T 19012-2008	Quality management – Customer satisfaction – Guidelines for complaints handling in organizations
	Product operations, Underwriting	Transaction fairness management	JR/T 0053-2009	Motor vehicule insurance data exchange specification
		Loss control and loss prevention		
		Friendly service management		
Ensure information security of clients	Enterprise resource management – Information security management	Information security management	ISO 27002:2005	Information technology – Security techniques – Code of practice for information security management
Good occupational health and career develop-ment for employees	Enterprise resource management – Human resource management	Occupational health & safety management and training	GB/T 28002-2011	Occupational health and safety management systems – Guidelines for the implementation
			GB/T 28001-2011	Occupational health and safety management systems – Requirements
			GBZ 188-2007	Technical specifications for occupational health surveillance

Value drivers	Business functions	Activities	Relevant standards	Standard titles
Energy saving with more efficiency	Enterprise resource management – Equipment and facility management	Energy products and equipment management	GB/T 2589-2008	General principles for calculation of the comprehensive energy consumption
	Product operations	Green insurance	GB/T 3485-1998	Technical guides for evaluating the rationality of electricity usage in industrial enterprise
			GB/T 15316-2009	General principles for monitoring and testing of energy conservation
			GB/T 6422-2009	Testing guide for energy consumption of equipment

Table 3 – Standards used in business functions in the scope of the case study

7 Selection of operational indicators to measure the impacts of standards

The following **Table 4** contains the indicators that were applied to measure impacts of standards.

Business Functions	Related activities	Operational indicators	Standards	Definition of the indicators
Enterprise Resource Management/ Operations Management	Business continuity management	Rate of recognition of potential disruptive events	ISO 22301:2012 Societal security – Business continuity management systems – Requirements	Rate of timely identification of important business disruptions following which emergency schemes are applied
		Business recovery time		Time needed for the complete recovery of the business following a disruptive event
	IT Service continuity management	System availability	GB/T 20988-2007 Information security technology – Disaster recovery specifications for information systems	Number of events that could potentially cause serious disruptions of the IT system that require taking extraordinary measures
		Calamity tolerance ability		Ability of the information system to deal with the disaster-hit, keeping the system running or keeping disruption to a minimum
Enterprise Resource Management/ Risk Management	Risk management	Conclusions of internal controlling audits by external reviewers	ISO 31000:2009 GB/T 24353-2009 Risk Management – Principles and guidelines	Auditing the effectiveness of internal controls related to financial reporting by external auditors in order to preserve and ensure the valuation of the organization by following the basic standards of internal control
		Solvency margin ratio	ISO/IEC 31010:2009 GB/T 27921-2011 Risk Management – Risk assessment techniques	Solvency margin ratio is the rate of the insurance company's actual capital versus the minimum capital requirements
	Catastrophe insurance management	Solvency margin ratio	JR/T 0054-2009 Catastrophe insurance data acquisition norms	

Business Functions	Related activities	Operational indicators	Standards	Definition of the indicators
Enterprise Resource Management/ Risk Management	Reinsurance management	Efficiency and quality of reinsurance processing	JR/T 0036-2007 The reinsurance data exchange specification	Through the use of standards the efficiency and quality of reinsurance processing is improved
Customer Relationship Management/ Client Service	Standard client service management	Customer satisfaction	ISO 10001:2007 Quality management – Customer satisfaction –Guidelines for codes of conduct for organizations	Customer satisfaction is composed of claim satisfaction, satisfaction with the treatment by the sales agent, renewal satisfaction, salesman satisfaction.
	Deal with customer complaints	Fast handle the complaint	ISO 10002:2007 Organization management – Customer satisfaction – Guidelines for complaints handling in organizations	Time responsiveness in claim handling, which is calculated as follows : number of complaints handled in a defined time frame / Total number of complaints × 100 %
Product operations/ Underwriting	Transaction fairness management	Coverage of auto insurance centralized trading	JR/T0053-2009 Motor vehicule insurance data exchange specification	Insurance information and information about claims that can be shared among insurance companies resulting in more impartial and open pricing of insurance
	Disaster prevention and derogation	Auto insurance loss frequentness		Number of insurance cases within the time period of insurance coverage
	Friendly service management	Self-service correction rate		Number of endorsements through self-service audits / Total number of endorsements through audits
		Self-service underwriting passing rate		Number of policies of self-service underwriting / Total number of policies through underwriting

Business Functions	Related activities	Operational indicators	Standards	Definition of the indicators
Enterprise Resource Management/ Information Security Management	Information security management	Graded protection assessment	ISO 27002:2005 Information technology – Security techniques – Code of practice for information security management	Appraisal process that validates if the information systems meet required security protection levels
		Information security knowledge course accomplishments		An information security course is held each year and offered to every employee over the intranet. Rate of completion by employees of the course by passing the final exam
Enterprise Resource Management/ Human Resource Management	Occupational health & safety management and training	Rate of injuries and absences	GB/T 28002-2011 Occupational health and safety management systems – Guidelines for implementation GB/T 28001-2011 Occupational health and safety management systems – Requirements	Healthiness of the staff as a consequence of the introduction of certain standards
		Number of comprehensive welfare insurance plans		Number of employees having joined comprehensive welfare insurance plans
		Total growth rate in the number of trainees	GBZ 188-2007 Technical specifications for occupational health surveillance	Situation of employee training

Business Functions	Related activities	Operational indicators	Standards	Definition of the indicators
Enterprise Resource Management/ Equipment and Facility Management	Energy products and equipment management	Energy consumption	GB/T 2589-2008 General principles for calculation of the comprehensive energy consumption GB/T 3485-1998 Technical guides for evaluating the rationality of electricity usage in industrial enterprises GB/T 15316-2009 General principles for monitoring and testing of energy conservation GB/T 6422-2009 Testing guide for energy consumption of equipment	Use of standards with the result of a reduction in energy consumption
Product & operations	Green insurance	Number of cases of insurances against environmental pollution and liability		Through environmental pollution liability insurance, enterprises are supported in achieving energy conservation and emission reduction, which results in security assurance for the public

Table 4 – Operational indicators applied in the assessment

8 Quantitative and qualitative assessment of the non-economic benefits of standards

8.1 Impacts by standard

8.1.1 Assessment of non-economic benefits achieved through standards for sustainable financial operations

In the following section we look at the impacts from the use of certain standards to determine non-economic benefits.

a) ISO 22301:2012, *Societal Security – Business continuity management systems – Requirements*.

For an insurance company, it is highly important to ensure continuity of its business since other enterprises need precise emergency assistance during or immediately after extreme natural disasters, or when public security crises occur. It is ISO 22301:2012 that establishes the reference for business continuity management. This standard helps to preset the disaster scene and all kinds of crisis situations, to establish a management mechanism, contingency plans and procedure in advance. It ensures that the business operates continuously, or recovers a short time after a crisis situation.

Before the use of this standard, the emergency management of Ping An was not optimal. Since 2005, Ping An has been using a set of criteria promoting business continuity. It has developed procedural rules for emergencies, defined a decision making process for an entire critical event, and made forecasts of possible impacts caused by business disruptions. Moreover, Ping An has also made all types of arrangements by provisioning internal and external resources, handling the external release of information, and controlling public relations, staff and equipment. Once critical events occur, the recognition ratio is almost 100 % and the measures taken are successful and according

to predefined processes so that mistakes in decision-making can be limited significantly. The time needed to react to major emergencies has improved continuously. Compared with the period before the use of ISO 22301, the recovery time from major emergencies has decreased by 20%. As a consequence, the key operations of Ping An can continue minimizing losses to the enterprise and to society as far as possible. Even in extreme conditions, such as earthquakes and typhoons, Ping An can ensure business continuity, simplify claim procedures, accelerate the adjustment and proactive reimbursement of losses, and guarantee insurance protection. It is able to support post-disaster reconstruction and the resumption of production, guarantee normal production and daily life, and maintain social harmony and stability.

b) GB/T 20988-2007, *Information security technology – Disaster recovery specifications for information systems.*

GB/T 20988-2007 is an important reference standard for Ping An to backup and restore information systems that are faced with the danger of disaster. This standard specifies the basic requirements the recovery processes from an information system disaster must follow. It clarifies recovery time objectives (RTO), recovery point objectives (RPO), and the disaster recovery capability level to be applied in building the disaster prevention systems. Ping An builds recovery systems for its information system, such as computer rooms, servers, system data backups and synchronization mechanisms according to the standard. When a production system is affected by irreparable disaster damage, it will switch automatically to the disaster backup system to ensure normal operations, to avoid affecting customer information and to continue supporting business needs.

The disaster recovery backup team is responsible for data backup, the development of disaster recovery plans and a series of disaster

emergency plans for information security incidents, power interruption, network and system interruptions. In order to test the validity of emergency plans, disaster recovery drills are conducted annually to simulate real events and provide training on cooperative measures to be taken in the case where all units face an emergency situation. Records of each drill are kept, and emergency plans examined and improved based on the results of the drills. In the daily operations, information of key importance in the database is backed up remotely and mutual backup data centers have been established in Shanghai and Shenzhen. In 2012, Ping An conducted the ninth disaster recovery drill, and achieved the expected results, which ensures appropriate implementation of the disaster recovery plan.

According to the standard definition of the disaster recovery grades of the Information Office of the State Council of China, the capability in Ping An for disaster recovery has reached the fifth level of "real time data transmission and complete equipment support". After the introduction of the standard, the system availability has improved constantly as shown in **Table 5.** For example, compared with 2009, it increased by around 0.6 % in 2012 reaching nearly 100 %.

2009	2010	2011	2012
99.4 %	98.94 %	99.56 %	99.97 %

Table 5 – System availability in Ping An Property & Casualty

c) ISO 31000:2009, *Risk Management – Principles and guidelines*, and GB/T 24353-2009, *Risk Management – Principles and guidelines on implementation*.

Through the implementation of standards, Ping An has set up a mature risk management framework together with robust communication

and reporting mechanisms. A risk management system covering all business lines has been established with the company board taking the final responsibility, senior management leading directly the risk supervision committee and other professional committees providing support, the department for contracts and regulations leading in the coordination, and other risk departments cooperating closely. Meanwhile, the culture of risk management has been built into the culture of the whole enterprise ensuring a solid foundation for an effective risk management system.

Combining qualitative and quantitative methods, Ping An has established a set of risk management mechanisms and procedures to ensure that all sorts of risks can be fully and effectively controlled. A standards-based system of internal control assessment procedures, methods and tools has been established since 2008. This set of systemized methods promotes the improvement and operation of internal control and forms a cyclical management process composed of the elements " Risk assessment – Internal control – Self-evaluation of samples – Continuous improvement " which form the basic operation mechanism of a self-adjusting and sustainable internal control system. Ping An has been audited by Ernst & Young and given the grade " Satisfaction without reservation " for two consecutive years.

d) ISO/IEC 31010:2009 and GB/T 27921-2011, *Risk management – Risk assessment techniques.*

This standard defines a set of risk assessment techniques along with application guidelines and provides information and analysis based on evidence for effective risk handling, to support the establishment of robust risk management systems in enterprises.

Ping An started to implement this standard in 2012 and has introduced a number of techniques recommended in the standard including brainstorming, scenario analysis, pressure testing, risk metrics, value-at-

risk, mean-variance model, CAPM, Monte Carlo simulation analysis to assess possible impacts of difficult situations for the company and to manage any negative influences. Ping An monitors key risks regularly by using some of the techniques from the standard. It analyzes its risk exposure, evaluates possible risk factors and its entire risk tolerance capacity, determines the effects of risk on solvency in order to take preventive measures, to reduce the possibility of functional failures, to support decision-making on management issues with higher efficiency, to meet the needs of supervision and monitoring and safeguard the benefits of shareholders and of its clients.

Ping An thoroughly reviewed its risk management system on the basis of the respective risk assessment techniques, upgraded and optimized its assessment techniques for market and credit risk. In accordance with the requirements for second-generation supervision and monitoring of solvency ability, Ping An has set up a special working group to support the establishment of a management system to ensure solvency ability and overall risk management. Ping An has established a risk management mechanism to evaluate company credit risk. It constantly optimizes the quote system against credit risk for financial peers and ordinary companies, further prevents concentration risk, lays a solid ground for establishing a comprehensive risk management system by learning from new advanced international management models. Since the implementation of standards, Ping An's " Adequacy of solvency " has been maintained at the highest level of Category II of supervision, and the credit rating from Standard & Poor's has been maintained at A level with an " Appropriate " rating regarding risk management.

e) JR/T 0054-2009, *Catastrophe insurance data acquisition norms.*

Through this standard, Ping An has gained a better understanding of the risks of natural disasters by analyzing the latest trends and rules for disaster risk treatment. This includes the identification of possible risks, focusing and researching the strategy to reduce the impact of disasters, action preference and the changing occurrence of catastrophic risks due to climate change, discussing possible solutions and minimizing losses to enterprises and the society. The implementation of this standard provides an effective method for collecting data on disaster risks, predicting the frequency and severity of natural disasters based on the analysis of recent disaster data and conducting assessments of their impacts, secondary disasters and derivative disaster losses. In parallel and in accordance with the requirements of this standard, Ping An has built a database of catastrophic risks, improved the system structure and developed corresponding insurance products. Together they provide an important criterion for the supervision of its solvency, convenient access for enterprises to data, support offered by governemental administration in a disaster risk case and has laid the foundation for the development of catastrophe insurance. Through the strengthening of interchanges between Ping An and related state agencies, strategy suggestions will eventually be provided that support the development of laws and regulations on catastrophe insurance by the legal power authorities in China.

Owing to the implementation of this standard, the collection of catastrophe insurance data is more standardized and, at the same time, data sources are more varied ; the conditions for re-insurance are more reasonable by diverting and defusing disaster risks more widely.

The single biggest risk in the insurance industry is the solvency risk. Solvency is the ability to pay debts of an insurance company. Strengthening solvency management is the key to ensuring a stable

insurance market which develops soundly and provides solid protection to policy holders. Ping An is equipped with the capital volume which matches its risks and its business scale. Together with the arrangements of re-insurance for catastrophes and by ensuring its compliance with adequate solvency ratios, Ping An is able to meet the requirements of supervision agencies regarding safety requirements.

f) JR/T 0036-2007, *The re-insurance data exchange specification.*

Standardization of re-insurance data is an important foundation for high quality management. The implementation of this standard regulates the information flow in the re-insurance market and thereby increases the competiveness of re-insurance by leveraging information technology. Ping An has accelerated the establishment of a statistical system of re-insurance through the implementation of this standard, promoting a re-insurance data exchange system, and raising the cooperation level of re-insurance within the entire insurance industry.

Since the implementation of this standard, the re-insurance data exchange has increased by 20 %, and the efficiency of business processes has increased by 10 %, which has helped in cutting operation costs and boosting the growth of the re-insurance business.

8.1.2 Assessment of non-economic benefits of relevant product and service standards

a) ISO 10001:2007, *Quality management – Customer satisfaction – Guidelines for codes of conduct for organizations.*

Maintaining a high level of customer satisfaction is an important challenge faced by many organizations. One solution to this challenge is the definition of a code of conduct for customer satisfaction which consists of commitments and related requirements regarding

product delivery, product return, customer information handling, and advertising, as well as the definition of attributes or product performance. Codes of conduct for customer satisfaction can also be part of an effective complaints handling system. This standard provides guidance for the planning, design, development, implementation, maintenance and improvement of behaviour aimed at customer satisfaction, in order to meet the exact needs and expectations of customers and to avoid any misunderstandings.

Using this standard, Ping An has formulated codes of behaviour related to customer satisfaction, which have achieved improvements in customer services and generated significant social benefits. The customer satisfaction rate is rising annually. According to a 3rd-party review report on customer satisfaction, Ping An had a 93 % customer satisfaction rate in 2012 (see **Table 6)**, which is much higher than its competitors.

Year	Fast handling of complaints	Customer satisfaction
2012	97.94 %	93.17 %
2011	98.44 %	93.65 %
2010	98.70 %	92.75 %
2009	98.90 %	91.85 %

Table 6 – Performance indicators for customer service

b) JR/T 0053-2009, *Motor vehicule insurance data exchange specification.*

To meet the needs of the fastly developing vehicle insurance industry, this standard defines the transaction of vehicle data exchange in business, unifies the naming and category of business terms, data exchange formats, data types and structures of each data element. This standard applies to all insurance data exchange activities in China for the vehicle insurance.

Ping An introduced this standard in 2010 and standardized data exchange reaching a higher level of accuracy. At the same time, Ping An has developed a comprehensive vehicle insurance information platform that combines compulsory transportation insurance, business insurance approval and claim, to facilitate information exchange between companies.

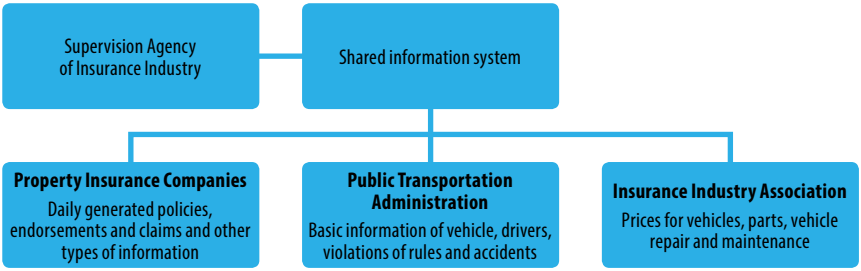

Figure 4 – Information sharing platform of automobile insurance

The operation of this platform is as follows: Information from property insurance companies, public transportation administration departments and insurance associations are first sent to this platform. The system then processes the received information by recognizing and sorting different data from all departments, and exchanges data on a regular basis. In addition, supervision agencies of the insurance industry can search and obtain information and data related to policy, endorsement and claim through its connection to the platform system, thus ensuring a dynamic and effective supervision and maintaining order in the vehicle insurance market. The establishment of this information sharing platform for vehicle insurance has four non-economic benefits:

c) Support for the regulation of the vehicule insurance market and creation of a good environment for the insured.

The establishment of this information sharing platform of motor vehicle insurance information supports insurance supervision agencies and

insurance associations. It facilitates access to premium rates, commission ratios, loss rates, claim settlement times and other indicators and data of an insurance company to determine whether the company has any misconduct or vicious competition behaviour. Moreover, it allows to monitor the solvency level of any insurance company in real-time, determine if the depreciation of outstanding claims reserve is compliant to law and regulation, and find out whether a company has faked any outstanding loss reserve to manipulate its profit figures. These new capabilities empower insurance supervision agencies to design and quickly adjust corresponding policies and regulations to guide the market behaviours of all insurance companies, promoting the shift from the conventional cut-throat competition of "high return, high commission rate, high discount, low premium" to one with improved service standards. Overall, it helps to create a healthy competitive environment for the vehicle insurance market and better regulate competition in the insurance market.

By the end of 2010, the information platform of the motor vehicule insurance of Ping An Property and Casualty Insurance covered about 24 provinces and cities all over China and the centralized trading of motor vehicule insurance covers nearly 85 %. In 2012, the platform extended to cover 99 % of provinces and cities (except Tibet). The increase in the coverage brings fair trading benefits to more customers and allows them to enjoy a good purchasing environment for insurance policies.

d) Promote information transparency and protect interests of the insured.

The motor vehicule insurance platform has not only substantially enhanced the effectiveness of the entire process of quoting and underwriting, it has also increased the process and transparency of underwriting. The insured can now easily obtain information about the

purchase price of new cars, claim records, current premium discounts and possible factors leading to a rise in premium. This information helps to reduce potential loss to the insured resulting from illegal operations, misdirection by insurance intermediaries, and losses due to premiums that were intentionally set at artificially high rates.

e) Provide applicants with more convenient and faster service.

The use of the platform allows Ping An to collaborate with the transportation department which makes it possible to settle traffic accidents more efficiently. By leveraging the transportation department's information sources and know-how and their direct handling of accidents, moral hazards can be effectively controlled. Moreover, Ping An's platform widely applies new technologies, such as Internet, phone, SMS and other modern communication techniques, to provide customers with a simple, convenient and qualified service. The acceptance ratio of automated underwriting and self-endorsement provided by Ping An are shown below. With the launching of the platform, customers can underwrite and endorse a policy through a self-service platform. Thus, Ping An makes its service to customers more convenient and faster.

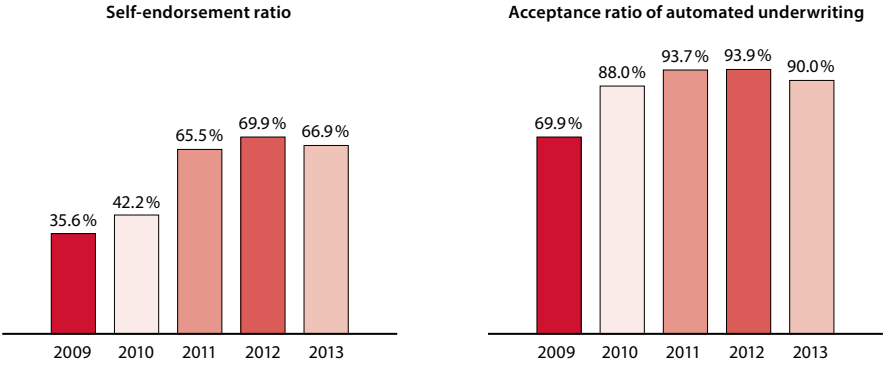

Figure 5 – Pass ratio of automated underwriting & self-endorsements in motor vehicule insurance, Ping An

From **Figure 5,** it can be seen that the acceptance ratio of automated underwriting has increased from 70 % in 2009 to 90 % in 2013. The total number of customers from January 2010 to September 2013 is 127 million with an average decrease in processing time of 0.9 hour. The self-endorsement ratio has increased from 35.6 % in 2009 to 66.9 % in 2013. Approximately 5.5 million customers used this service and took out policies between January 2010 and September 2013.

f) Promotion of customer awareness to traffic safety.

Through the motor vehicule insurance platform, Ping An offers discounts on renewals for drivers who comply with driving safety rules, and have no loss records. This programme is effective in encouraging drivers to drive safely demonstrated by the fact that the accident rate of all drivers insured by Ping An in 2012 has decreased by 24 % compared to the rate in 2009.

8.1.3 Assessment of non-economic benefits of relevant information security standards

a) ISO 27002:2005, *Information technology –Security techniques – Code of practice for information security management.*

Ping An has an information security management framework, established since 2005, when it was first certified against the international information security standard ISO 27001. Since then, annual re-certifications have ensured that Ping An's information security management system continues to abide by high standards and to operate effectively. Based on national laws and regulations, industry standards, and the corporate business situation, Ping An has implemented a coherent information security strategy to supervise the execution of information security policies across all business units and subsidiaries. The same strategy is also used to strengthen the comprehensive information security monitoring and auditing across

business units and corporate systems, with the goal to enhance governance of information security implementations.

Ping An has implemented a systematic training programme comprising onsite and online courses, morning announcements, corporate newsletters, and email updates, to promote information security awareness among employees. The completion rate of information security training courses has been consistently at 100 %. New employees are required to complete the training courses within 3 months of their hiring dates, which is a mandatory condition to pass probation.

To assure prompt detection and fast responses to information security incidents, Ping An has deployed intrusion detection and protection systems at various levels of its computer network, servers, databases, and application data sources. Ping An has also established and gradually perfected a security incident response work flow. Upon detection of information security incidents, a warning is issued online and delivered to personnel in charge to enhance risk prevention and mitigation capabilities.

The internal information security auditing framework at Ping An is built around assessed risks. Routine audits are conducted on the information security systems, personnel, processes, general IT control, as well as third-party contractors. Findings from the audits are used to improve information security.

Since 2009, Ping An has commissioned external organizations accredited by the Department of Public Security to evaluate the security protection of all information systems at level 3. These evaluations have consistently concluded that Ping An's information security systems meet the requirements to protect level 3 information systems without any human-induced information security vulnerabilities. The findings attest Ping An an excellent track record in terms of its information systems risk management capability.

8.1.4 Assessment of non-economic benefits of standards for employee health and career development

b) GB/T 28001-2011, *Occupational health and safety management systems – Requirements*, GB/T 28002-2011, *Occupational health and safety management systems – Guidelines for implementation.*

While the employees directly participate in the company's operational activities, they are also actively engaged in the development of their homes and the society. Therefore, protecting employees' occupational health and safety is a top priority of the company's business activities and development.

Using GB/T 28001-2011, *Occupational Health and Safety Management Systems – Requirements*, as the basis and GB/T 28002-2011, *Occupational Health and Safety Management Systems – Guidelines for implementation*, Ping An proactively implements occupational health and safety protection activities for its employees.

Before the introduction of these standards, the health and safety of employees mainly relied on social insurance which is, however, not sufficient to avoid serious illness and protect against accidents. Following implementation of the standards, Ping An provides a full range of coverage for all employees. Compared to 2010, the number of employees covered by comprehensive welfare insurance benefits increased by 20.5 %. In this way, employees receive more protection in addition to the social insurance coverage with more comprehensive insurance security plans, which has created a better working environment and a more harmonious working atmosphere.

	2010	2011	2012
Number of participants	37684	43543	45426

Table 7 – Participants of employee comprehensive welfare insurance scheme

The company enthusiastically promotes " work happily, live healthily ". It organizes staff health checks each year to identify health problems as early as possible and regularly holds health workshops and outdoor sports activities. Compared to 2009, the staff absenteeism in 2012 reduced significantly, with zero loss of working time rate and low level injury rates.

	Injury Rate	Working Time Loss Rate	Absenteeism Rate
2012	0.09 %	0.00 %	0.04 %
2011	0.06201 %	0.01951 %	0.12382 %
2010	0.00764 %	0.01161 %	0.14649 %
2009	0.02027 %	0.00624 %	0.2183 %

Table 8 – Occupational health and safety data for Ping An

c) GBZ 188-2007, *Technical specifications for occupational health surveillance.*

Before introduction of the standard, the career development path for employees was not clear and training courses were not well matched with job responsibilities. After implementation of the standards, Ping An clarified different career development paths for employees from management, technical services and sales (**Figure 6)**. Training courses were based on professional development paths and individual abilities. Ping An consistently provides training resources to its branch offices nationwide and has also increased online training courses. Compared to 2010, in 2012 the number of lecturers increased by

91.1 %, classroom teaching by 50 %, and the number of online courses by 38.9 %, which ensured that all employees received the best professional and most effective training according to their specialties. At the same time, these measures have also effectively conserved energy, reduced emissions and cut training costs. Compared to 2010, the training expense of 2012 was reduced by 26.1 % while the time used for training increased by 23.1 %.

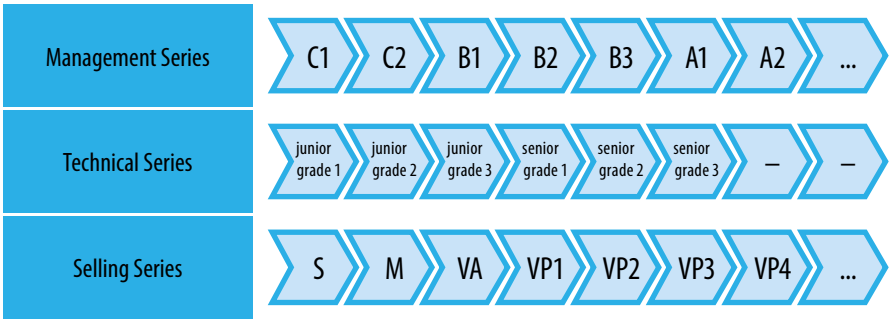

Figure 6 – Employee career development pathway

	Training expenses	New online training courses	Classroom training	Part-time lecturers	Training attendance
2012	360 million RMB	1299	1767	1015	38612
2011	649 million RMB	1066	1479	705	33121
2010	487 million RMB	935	1178	531	31371

Table 9 – Training development overview at Ping An

8.1.5 Assessment of non-economic benefits of standards related to energy saving and emission reduction

With the increasing global importance of environmental issues, low-carbon emissions and sustainable development have become main trends in social development. As a finance company, business value generates profits, while social value results in contributions to

environmental responsibility. Since 2010, Ping An has been using relevant standards on energy management for products and equipment. The purpose is to provide energy consumption benchmarks for the daily operations of the company, including use of water, electricity, paper and other resources. Ping An also monitors technical specifications and operations of its technical equipment to reduce energy consumption, minimize waste and protect the environment without affecting regular business.

Centralized back-office operations and the policy of a paperless office make the business of Ping An more efficient and rigorous and helps the company to significantly reduce operational costs and energy consumption. In 2012, the company saved over 78 million sheets of paper amounting to around 342 tons. At the same time, through low-energy IT devices, high-efficiency cooling equipment and virtualized IT, the company has improved its equipment utilization, lowered the overall energy consumption and reduced carbon emissions.

By improving lamps and lighting systems, air-conditioning, computer rooms and other equipment, Ping An has raised office space efficiency and reduced resource consumption. By using a common IT platform, all office computers are set to be shut down at 20:00 daily, so that 10 million KWh can be saved annually. In the office, a series of regulations are applied throughout the company for electricity savings and energy reduction, including lights shut down at 19:00 every day (except for emergency lights), setting of the air-conditioning temperature at an economic level, and the replacement of traditional office PCs by light and energy saving types.

In procurement, Ping An has specified a supplier management system. Product development and sales management systems follow green purchasing priorities and apply a focus-oriented review system. Products and services from suppliers should be in line with

national and industry standards. The company focus is on ensuring compliance of the entire production process with environmental protection requirements.

Ping An has not only applied standards in its own energy saving activities, it has also helped its customers to achieve energy savings and emission reductions.

For industries with potential high hazards or high pollution risks, such as metal, oil, chemical, nuclear, sewage treatment and bio-pharmaceuticals, Ping An has developed, since 2007, an environmental pollution liability insurance which relates the insurance premium to the level of safety and environmental protection. This strengthens the management of insured companies and their responsibilities, encourages them to use emission standards, to reduce pollution levels and enhance initiatives aimed at environmental pollution remediation. International experience shows that the implementation of environmental pollution liability insurance schemes is an effective way of safeguarding the legitimate interests of pollution victims and improving environmental risks prevention through market mechanisms. The company's environmental pollution liability insurance business continued to grow rapidly in 2012, underwriting a total of 830 cases, which amounts to an increase of over 70 % compared to 2011. Total written premiums in 2012 amounted to 1.97 billion RMB, an increase of around 18 % compared to 2011.

8.2 Calculation of the non-economic benefits of standards

Through interviews of senior managers and directors in key business functions, and after considering their experience in standardization, estimated values for the operational indicators were provided by comparing the situation before and after the introduction of the key

standards in Ping An. The estimated values are given in percentage terms in **Table 10**.

To differentiate between changes in the values of the indicators caused by the introduction of standards from other concurrent factors, we give, besides the overall changes in the respective indicators, the percentage contribution that can be traced to the impacts of standards as perceived by the interviewed managers and other professional staff in Ping An. The time period covered is between 2008 and 2012.

Business Functions	Related activities	Operational indicators	Change of the indicators	Impact of standards
Enterprise resource management – Operations management	Business continuity management	Important recognition rate for disruptive events	↑ 100 %	10 %
		Business recovery time	↓ 20 %	10 %
	IT service continuity management	System availability	↑ 1 %	5 %
		Calamity tolerance ability	↑ Grade 5	5 %
Enterprise resource management – Risk management	Risk management	Conclusion from external control audits	No change	3 %
		Solvency margin ratio	No change	3 %
	Catastrophe insurance management	Solvency margin ratio	No change	3 %
	Reinsurance management	Efficiency and quality of reinsurance service processing	↑ 10 %	5 %
Customer relationship management-Client service	Standard client service management	Customer satisfaction	No change	3 %
	Customer complaints handling	Fast handling of complaints	↑ 1 %	3 %
Product operations underwriting	Transaction fairness management	Coverage of auto insurance centralized trading	↑ 99 %	50 %
	Disaster prevention and derogation	Motor vehicule insurance loss frequentness	↓ 15 %	10 %
	Friendly service management	Self-service correction rate	↑ 31.3 %	4 %
		Self-service underwriting pass rate	↑ 20 %	3 %

Business Functions	Related activities	Operational indicators	Change of the indicators	Impact of standards
Enterprise resource management-Information security management	Information security management	Graded protection assessment	Level 3	10 %
		Pass rate in Information security knowledge course	↑ 100 %	10 %
Enterprise resource management – Human resource management	Occupational health & safety management and training	Number of comprehensive welfare insurance plans	↑ 20.5 %	10 %
		Absenteeism rate	↓ 445 %	10 %
		Delay rate	Drops to 0	10 %
		Injury rate	No change	10 %
		Total growth rate in the number of trainees	↑ 23.1 %	5 %
Enterprise resource management – Equipment and facility management	Energy products and equipment management	Energy consumption	↓ 20 %	3 %
Product operations	Green insurance	Cases of insurance for environmental pollution liabilities	↑ 70 %	10 %

Table 10 – Calculation of the non-economic benefits of standards

9 Assessment results

Based on the ISO Methodology, this report assesses the non-economic benefits resulting from the implementation of international, national and industry-sector standards in Ping An. The conclusion is that remarkable benefits have been achieved, particularly in the areas of business continuity management, trade fairness management, information security management, green insurance and some other sections covered by the operations of Ping An.

By implementing standards in **business continuity management**, Ping An identified potential risks and their effects, and established prevention and response mechanisms to deal with major emergency events. Such measures have increased the tolerance capacity for dealing with disasters, reduced the recovery time to return to normal business, and ensured the capability to maintain a basic level of business activity in cases of major emergencies and disruptive events.

Striving for **fair trading practices**, in collaboration with peer enterprises, Ping An has built and is operating an integrated transaction platform for motor vehicule insurance which can be used throughout China (with the exception of Tibet).

Ping An has also deployed and advanced a highly effective **information security management** framework based on information security regulations and standards. This framework has been operating continuously and provides the highest level of security assurance to customer data.

To promote **green insurance schemes**, Ping An has developed a liability insurance for environmental pollution and encourages the participating enterprises to adopt pollution emission standards to reduce pollution emission levels. It promotes actions aimed at cleaning up pollution in the society.

This assessment project of the non-economic benefits of standards has received strong support from all levels of management in Ping An. The scope of the project assessment was determined following comprehensive and objective analysis and frequent consultations with Ping An's senior management team. The impacts of external standards on the company have been comprehensively assessed through frequent communications with Ping An. The results capture the non-economic contributions of standards to the main business functions in the value chain.

It is worth noting that this is the first study in this area in the history of Ping An. It is possible that the results have been influenced by the following factors:

- The information provided by the persons interviewed was mainly qualitative. It was therefore difficult, and sometimes impossible, to quantify the impacts of measures as well as of the specific contributions of standards.
- It was sometimes difficult to determine precisely which portion of an impact could be attributed to the use of standards.
- In some instances a conservative approach was applied to the estimation by choosing a lower or medium value in a range of possible values.

This means that, while evidently significant, the impacts of standards for Ping An were most probably underestimated. Information gathered through the interviews also indicated that there still seems to be potential for further performance improvements.

10 Conclusions

The assessment results show that the implementation of standards in Ping An has resulted in remarkable non-economic benefits. Through the analysis of these benefits, stakeholders have gained a better understanding of the value of standards and standardization activities. In turn, this understanding has enhanced recognition of the importance of standardization among the senior management and technical staff in Ping An. As a consequence of the analysis of the benefits of implementing standards in companies and the evidence provided in form of objective and verifiable data, the company management is strongly motivated to achieve further progress in standardization and the use of standards.

Annex 1 : Project participants

In addition to the individuals listed on the cover page of this report, the following have participated in the project :

- **Project member – Standardization Administration of the People's Republic of China (SAC)**
  - Mr. Li Dongfang, Standardization Officer, Department of International Cooperation, SAC
- **Project members – Market Supervision Administration of Shenzhen Municipality (MSA)**
  - Mr. Tan Jianjun, Division Director, Standardization Division, MSA
  - Mr. Cheng Shengtao, Principal Staff Member, Standardization Division, MSA
- **Project members – Shenzhen Institute of Standards and Technology (SIST)**
  - Mr. Lu Hongfeng, Director-in-Chief
  - Ms. Wen Lifeng, Deputy Director, Standardization Application Research Centre
- **Project members – Ping An Insurance (Group) Company of China, Ltd**
  - Ms. Chen Xinying, Chief Operating Officer, Chief Information Officer
  - Mr. Mao Jinliang, Chief Operating Officer, General Manager's Office
  - Mr. Chen Zhixiang, Vice Manager, Operation Management Department
  - Mr. Deng Huawei, Standardization Engineer
  - Mr. Shen Shu, Personal Line Business Supporter, Personal Line Business Department
  - Mr. Shi Hang, Human Resource Management Specialist, Human Resources Department
  - Mr. Hu Yang, Vice Manager, Executive Office

- Mr. Zhao Peng, Administrative Management Specialist, Executive Office
- Ms. Dong Yi, Actuarial Analyst, Reinsurance Department
- Ms. Wang Shumei, Reinsurance Business Management Specialist, Reinsurance Department
- Ms. Li Chunxia, Project Management Specialist, System Application Department
- Mr. Gu Mu, Leader of Trust and Investment Management, Asset Management Department
- Ms. Wang Xiaohua , Service Channel Management Specialist, Customer Service Department
- Mr. Song Zhenpu, Customer Complaint Management Specialist, Customer Service Department
- Ms. Xu Qianqian, Internal Control Officer, Compliance Department
- Mr. Li Qinglong, Anti Money Laundering Management Specialist, Compliance Department
- Ms. Li Yanfen, Sales and Service Supporter, Customer Service Dept., Henan Branch