

# Risk Thinking in ISO Quality Management System

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## ABSTRACT

The importance of risk thinking is emphasized in the ISO quality management system. In order to do a good job in quality management, we should use risk thinking to do a good job in risk management, improve the level of quality management, and enhance customer satisfaction, so that enterprises can meet the international quality certification standards in the process of development, and have greater development space in the market. Therefore, this paper studies the risk thinking in the ISO quality management system, summarizes the concept of risk thinking in the ISO quality management system, analyzes the problems existing in the application of risk thinking in the ISO quality management system of Chinese enterprises, and puts forward some suggestions for improvement one by one. It is hoped that the analysis can promote Chinese enterprises to fully integrate risk-based thinking into quality management, calmly cope with risks and opportunities, and make customers more satisfied with their services and products.

## 1. Introduction

In the process of development and fierce market competition, enterprises must reverse the market and respect consumers. Only when customers are satisfied with the products or services provided by the enterprise, can the enterprise have the space for survival and development in the market and obtain long-term benefits. The product quality is a necessary factor to form customer satisfaction, and is the lifeline to develop the market. Therefore, in order to make customers more satisfied with the products or services they provide, enterprises need to do a good job in quality management, strictly control and strive to improve the quality of products or services. ISO9001 is an internationally certified quality management system, and also the “gold standard” for enterprises in quality management. The risk thinking emphasized in this “gold standard” is what many Chinese enterprises

need to further implement. In quality management, risk management can effectively reduce the probability of quality problems, so it is of great help to improve the quality of products and services.

## 2. Overview of Risk Thinking in ISO Quality Management System

Risk based thinking is the core concept of ISO9001 standard. The management principles of “risk-based thinking” and “process approach” are integrated into the quality management system and its processes, which are important input contents of quality management system planning and process planning. In essence, risk thinking is to consider the risks existing in quality management, accurately and comprehensively identify the risks and opportunities that may affect the quality of products and services and enhance customer satisfaction, plan and

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implement measures to deal with risks and take advantage of opportunities, so as to improve the effectiveness of the quality management system and achieve the improvement results And prevent adverse effects.

### **3. Problems in the Application of Risk Thinking in ISO Quality Management System**

#### **3.1 Lack of Risk Awareness**

Risk thinking is the thinking mode that managers must have, but some enterprises in our country, from the top leaders to the employees, have the problem of weak risk thinking. First of all, the leaders of the enterprise do not realize the importance of risk management for the products and services provided by the enterprise, so the supervision and attention of the risk management related work are not in place. Secondly, there is a great correlation between the awareness of enterprise employees and the awareness of enterprise senior managers. Usually, the things that enterprise leaders attach importance to will also be valued by employees, and the things that enterprise leaders ignore will also be gradually ignored by employees. Therefore, if enterprise leaders do not have a deep understanding of risk thinking, it is difficult for enterprise employees to have a deep understanding of it.

#### **3.2 Incomplete Risk Identification**

To do a good job of risk management in quality management, we must do a good job of risk identification. Only by accurately identifying the risks that will affect the quality of products or services in the enterprise, can we do a good job of dealing with the risks. However, in many enterprises in our country, although they will identify the risks, they often miss many critical or hidden risks that will be fatal once they happen. These risks that are not identified in time become major hidden dangers, leading to quality reduction, even difficult to meet the quality standards, and even may lead to excessive production Safety accidents occurred during the process, resulting in casualties. At the same time, they are too optimistic about the favorable situation that opportunities may bring, and neglect the risk identification that opportunities bring. Risk is the influence of uncertainty, which may be positive or negative. The positive impact of risk may provide improvement opportunities, but not all positive impacts can provide improvement opportunities. Taking advantage of opportunities also needs to consider relevant risks.

### **3.3 The Scientific Nature of Risk Assessment System Needs to be Improved**

When the quality risk of an enterprise is identified, not every risk needs to be dealt with. Some of the risks will not have too much impact. If solving this risk needs to consume too much resources, it is the wisest choice not to deal with this risk at this time. At the same time, when dealing with risks, we need to have priorities, and some major risks must be solved as soon as possible. This involves the risk assessment work. If the enterprise can not do a good job in risk assessment, it may lead to the major quality risk problems are not accurately defined, and eventually lead to the major quality risk problems have occurred before they are solved. This problem is very common in some small and medium-sized enterprises in China.

### **4. The Strategy of Using Risk Thinking**

#### **4.1 Enhance Risk Awareness**

Risk awareness and thinking is the starting point of risk management. In the environment of strong risk awareness, many risk problems have been effectively dealt with before they are in danger. Every employee's awareness of their own responsibilities and roles will have more or less impact on the quality and risk of the enterprise. Therefore, we should enhance the risk awareness of all staff to make the risk management culture deeply rooted in the hearts of the people. First, the top leaders of enterprises should enhance their attention level to quality management risk thinking, and pass the risk management awareness to the middle level and ordinary staff layer by layer, so that all staff of enterprises are aware of the importance of risk management and the high attention level of enterprise leaders to quality risk. In the daily management work, we should implement strict risk standards, take the lead in promoting the implementation of risk matters, allow everyone in the enterprise to question and refute other people's attitudes, ideas and actions, exchange failures and faults, summarize and learn from them, encourage staff to pay attention to and quickly respond to external changes, and take the initiative to meet the impact of innovation and new environment, so as to Establish a good risk culture atmosphere. The second is to build a risk management index system and incorporate risk culture into employees' daily code of conduct. The quality risk management system and accountability mechanism should be established to clarify the responsibility of early warning and risk events, so as to respond to early warning and risk events quickly

and effectively. Third, strengthen the risk management knowledge of enterprise employees and special business training closely related to risks, improve the knowledge structure of employees, especially key employees, and enhance the risk sensitivity and awareness of production and operation risks of professional talents.

## 4.2 Comprehensive Risk Identification

Risk identification is the premise and foundation of risk management. The accuracy of risk identification largely determines the effect of risk management. It is necessary to identify the potential issues that may have an impact on the enterprise, including those that indicate risks, those that indicate opportunities, and those that may have both. To be able to identify quality risk comprehensively is a great performance of enterprises with risk thinking.

Firstly, quality management staff is the main force of comprehensive risk identification. It is necessary to provide high-quality risk management professional knowledge training for quality management staff, strengthen the training of high-quality risk management talents, and improve the professional level of quality management staff, so as to promote enterprises to have and enhance the ability of comprehensive risk identification.

Secondly, comprehensive risk identification is carried out through multiple dimensions and elements around the enterprise development goals. First, all staff participate in risk identification from the top down; second, identify the needs and expectations of the relevant parties of the enterprise; third, identify the impact of the external environment of the enterprise on the enterprise; fourth, identify the internal product and service production process of the enterprise.

Thirdly, using systematic and scientific methods to identify and analyze all kinds of risks and following the correct thinking of experience, knowledge, science and logic will help to correctly identify, analyze and evaluate risks, so as to put forward effective risk control measures. For example, on the basis of fully collecting relevant data, through the statistical analysis of the collected data, we can identify the relevant safety risks, follow the pre-set table for risk identification, identify the possible risks by designing reasonable test verification methods, use simulation technology for risk identification, establish risk management experience database, and save the past risk management data. In order to analyze the risk as a reference.

Fourth, establish a correct concept of risk identification. Risk management is to serve the development goals of enterprises. The key risks that affect the development

goals of enterprises are the focus of risk management, not all risks. However, due to the restriction of risk management cost and the limitation of risk management ability, it is impossible for enterprises to identify all risks. So we should focus on the identification of key risks.

## 4.3 Building a perfect risk assessment system

Risk assessment is to quantify the possible degree of impact or loss caused by an event or thing. As the basis of risk management, risk assessment is an important way for enterprises to determine information security needs, which belongs to the process of enterprise information security management system planning. In order to do a good job in risk assessment and risk classification, enterprises need to build a sound risk assessment system.

First, we should identify the various risks we are faced with, as well as the risk probability and possible negative effects; second, we should determine the development goals and risk preferences of the enterprise, especially the risks that affect the survival and development goals of the enterprise and the ability to bear risks; third, we should learn the methods of risk assessment, and use the assessment methods such as risk assessment matrix to rank the priority of each risk. To determine the priority of risk reduction and control. Fourth, after the completion of the classification, formulate solutions to the risk, such as what kind of safety measures should be taken to minimize the loss caused by the risk, report the risk assessment report to the senior leaders of the enterprise, analyze the risk tolerance, and facilitate the senior leaders to make timely strategic planning for the risk, and produce more satisfactory products for the customers. Fifth, it is necessary to reserve a good risk emergency budget, so as to directly mobilize funds when there is a risk problem, and improve the efficiency of solving the risk. Finally, we need to implement the risk management system. Once there is a risk problem, we should investigate the responsibility of the relevant responsible person according to the system. The enterprise risk assessment system should be adjusted according to the actual situation of the enterprise, there is no fixed form, but in the flexible adjustment, we must consider the role of human resources, cost, commercial value, quality level, safety and time.

## 5. Conclusion

ISO9001 emphasizes the importance of risk thinking, so enterprises must make full use of risk thinking in quality management. From the perspective of risk thinking, there are three main problems in the current

quality management in China, namely, the lack of risk awareness, incomplete risk identification, and the need to improve the scientific nature of the risk assessment system. Enterprises should use risk thinking to solve these problems. By enhancing risk awareness, comprehensively identifying risks and building a sound risk assessment system, risk thinking can gradually penetrate into the quality management of enterprises.

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