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## Research and Application of Intelligent System of Cost Control and Profit Forecast

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### Abstract

In order to meet the requirements of modern enterprises development, perfect mechanism of cost control and profit forecast should be constructed and effective system of cost control and profit forecast should also be established in enterprises. Through collecting various data information of business flow, the intelligent system of cost control and profit forecast analyzes reasons for cost fluctuation based on real-time accounting results, conducts analysis on cost accounting, cost forecast and profit forecast, and also transfers them to decision-making department accurately, timely and effectively. Thus, decision-making department can formulate related decisions and reduce enterprise cost effectively, achieving the goal of profit and improving comprehensively manager's ability of decision-making and analyzing.

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### 1. Introduction

In modern enterprise system, the perfect system of cost control and profit forecast can be established through the development of computer and information technologies and information system, so as to achieve the goal that the assets of investors have the maximum proliferation capability and improve the capability of enterprises owners in creating the optimal profit. It requires that the system of cost control and profit forecast should be neither a closed system nor an isolated system. Instead, it should be an open system with strong environmental adaptability, the nature of decision-making and intelligence. Meanwhile, from the perspective of space, the system involves not only manufacturing cost but also design cost, circulation cost, and other relevant costs. Yet, from the perspective of time, it contains not only course control but also beforehand

control and post-control. Specifically, the system should have such functions as: (1) The function of decision-making pre-control; (2) The function of cost forecast; (3) The function of responsibility pre-calculation; (4) The function of producing and marketing pre-adjustment. At present, most commercial systems or self-developed systems sold on the market belong to the closed type, being confined only to resources of the own enterprise or department. Even network merely refers to an isolated, externally closed and resources insufficient local area network. This situation fails to meet the requirements on information of international information society.

## **2. Researches on key technologies of intelligent system of cost control and profit forecast**

### *2.1. Goals of developing the system*

As for the intelligent system of enterprise cost control management and profit forecast, there are mainly such developing goals as follows: First, use optimization technique to assist cost manager of enterprise in conducting management activities effectively such as organization, implementation, control, tracking and analysis, in order to increase the cost calculation level, reduce manufacturing cost and improve work efficiency and economic benefits of cost management. Second, realize functions of basic data management, cost control, cost calculation and analysis, and report forms analysis, so as to achieve automation of working process as far as possible. Third, explore the pattern of cost control management and profit forecast analysis in the condition of computer application and establish the information system that is suitable for cost control management of manufacturing industry, upgrading cost control management and profit forecast to a new level on the basis of management information system. Fourth, through intelligent analysis on data, transfer analysis results to decision-making department accurately, timely and effectively, so that decision-making department can formulate related decisions and reduce enterprise cost effectively, achieving the goal of profit and improving comprehensively manager's ability of decision-making and analyzing.

It requires that the intelligent system of cost control and profit forecast must have functions like:

(1) Beforehand forecast: Through analysis on historical information and technical calculation in advance, work out the standard cost in a certain period of future when all production conditions are in a normal state, which is the goal of staff as well as the measure of saving or overspending actual cost. Thus, it functions as the beforehand control of cost.

(2) Course control: Make a comparison between actual consumption and standard consumption of cost during manufacturing process so as to reveal and analyze discrepancies between actual cost and standard cost timely, and take steps to make improvement quickly so as to strengthen course control of cost.

(3) Post-control: At the end of a period, calculate the differences between actual cost and standard cost, analyze reasons of differences, find out responsibility and evaluate performance to formulate effective measures, avoiding unreasonable expenditures and loss that might be happened again, as well as showing the direction for future cost management and approaches of reducing cost. In the meantime, through forecast and calculation on cost of products and many other costs of enterprise like capital cost, logistics cost and marketing cost, the profit prospect of the whole enterprise can be predicted and the current profit situation can be also analyzed, realizing the post-control on cost and profit.

### *2.2. Researches on key technologies of cost forecast subsystem*

It includes total cost forecast and sub-item cost forecast. The sub-item cost forecast adjusts correspondingly cost forecast with manufacturing schedule, realizing the dynamic management of cost.

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