

# A Study in Knowledge Management System of SGM

Guoyan Li

School of Management, Shanghai University, Shanghai, China

## Abstract

With the advent of a knowledge economy, the business environment is constantly changing, the domestic and international market competition is intensified, and the upgrading of products is constantly accelerated. Therefore, rapid decisions must be made on market changes and business crises, which makes knowledge management very important. The ubiquitous knowledge in the enterprise is an important factor that determines the success or failure of the enterprise and the enterprise obtains a sustainable competitive advantage. Therefore, it is of great practical significance to study the knowledge management of enterprises, and automobile enterprises, which take rapid adaptation to market changes and technological innovation as their competitive advantages, have more urgent needs for knowledge management. This paper discusses the theory of knowledge and knowledge management and implementation methodology, as "Shanghai gm's implementation of knowledge management framework" as the research object, from the knowledge management present situation analysis of Shanghai gm, Shanghai general motors company's knowledge management strategy are studied, explored the content of the Shanghai general motors company knowledge management, points out the shortages of Shanghai general motors in knowledge management.

## Keywords

Knowledge management; Knowledge management maturity; Car companies.

## 1. Introduction

With the rapid development of world economic integration and global trends, high-tech technology has become the dominant force in transforming traditional industries and improving labor productivity. The socialization of information and the informatization and knowledge of society have greatly improved. Intangible assets account for total social assets. The rising ratio has become the leading factor in asset appreciation. Knowledge-based intelligent and personalized product consumption has become the leading consumer structure. Knowledge has become a new market element and basic form and is a decisive factor for economic growth. The development strategy and business management philosophy centered on knowledge management have become a common understanding of business management and theoretical circles, and are a hot and key research topic in western business management. With the successful implementation of knowledge management in enterprises, in a modern society where knowledge is rapidly exploding, knowledge as an intangible asset of enterprises has become an increasingly important feature in modern business. The implementation of knowledge management and the attention to knowledge management issues have become today's social enterprises. The main source of success. More and more enterprises regard knowledge management as an important strategic choice for enterprises. The best knowledge management practices can enhance the competitiveness, profitability, and sustainable development of enterprises. This shows that the importance and necessity of knowledge management are increasing. obvious.

After more than half a century of development, the automobile industry has become more and more prominent in the development of the world economy. The automobile industry has gradually become a pillar enterprise of major automobile production countries and has a huge impact on the development of the world economy and social progress. profound influence. The automobile industry plays a role in optimizing the transportation structure, creating huge output value, and providing broad employment opportunities in the development of the national economy in China. Knowledge resources are the core competitiveness of the independent development of the automobile industry. It can improve the efficiency of the automobile industry and optimize the resource allocation of enterprises. The integration of knowledge management into Chinese automobile enterprises injects vitality into the existence and development of the automobile industry.

The practice of knowledge management in China has moved from theoretical dissemination to the stage of application, but the effect and efficiency of an application are relatively low. There has been confusion in knowledge management, serious loss of knowledge assets, difficulties in knowledge sharing, insufficient use of knowledge, insufficient quantification of knowledge assets, and personal knowledge. Problems such as insufficient integration with enterprise knowledge. Facing the problems of enterprise knowledge management, to improve the competitiveness of Chinese automobile enterprises in the international automobile industry, automobile enterprises urgently need to implement a knowledge management system.

This research is based on this background, given the actual situation of Shanghai General Motors, taking into account the good control of the projects, time, cost, and expenses developed by Shanghai General Motors, it studies the construction of the knowledge management system of Shanghai General Motors.

## **2. Analysis of the Development Status of Shanghai General Motors Corporation**

### **2.1. Shanghai General Motors Background**

SAIC General Motors Co., Ltd. was established on June 12, 1997, jointly funded by SAIC Motor Corporation and General Motors Corporation. At present, it has four production bases of Pudong Jinqiao, Yantai Dongyue, Shenyang Beisheng, and Wuhan branch, with a total of 4 vehicle production plants and 2 powertrain plants. It is one of the important leading enterprises in China's automobile industry. Adhering to the business philosophy of "customer-centric and market-oriented", Shanghai General Motors continues to create high-quality products and services. Currently, it has three major brands: Buick, Chevrolet, and Cadillac, covering everything from high-end luxury cars to economy cars. Gradient market, and high-performance luxury coupe, MPV, SUV, hybrid and electric vehicles, and other market segments. Over the years, Shanghai General Motors has continued to innovate and surpass. From its annual sales of 20,000 vehicles in 1999 to more than 1.39 million vehicles in 2012, it has become the fastest-growing passenger car company in China. Shanghai General Motors' forward-looking strategy, well-developed system strength, and innovative and surpassing entrepreneurial spirit are moving towards the goal of "leading domestically and internationally competitive".

Shanghai GM's "multi-brand, full-series" market strategy was the first in the domestic auto industry and achieved great success. Today, Shanghai General Motors owns three major brands: Buick, Chevrolet and Cadillac. With distinctive brand personality, superior product strength, and considerate and delicate service, it fits the mainstream value of society and the pace of development of the times and meets the diversification and individualization of different consumers. demand. Shanghai General Motors took the lead in launching the "Green Future" strategy in the industry in 2008 and comprehensively formulated a medium-term strategy with "developing green products" as the core, "building a green system" as the foundation, and

"undertaking green responsibilities" as the social practice. long term planning. The "Green Future" strategy embodies the mission and responsibility of Shanghai General Motors to keep pace with the times and is fully integrated into Shanghai General Motors' corporate vision, strategic planning, ethics and values, and is reflected in product development, technology application, and industrial manufacturing. Supply system, automobile sales, after-sales service, social responsibility and many other aspects. With the solid advancement of the "green future" strategy, Shanghai GM's system capabilities and product capabilities have greatly jumped, forging the company's core competitive advantages for the future.

## 2.2. Operating Status of Shanghai General Motors

On April 1, 2019, SAIC Group announced its 2018 financial report. The total revenue was 902.194 billion yuan, an increase of 3.62% year-on-year, setting the best level in history; the net profit attributable to shareholders of listed companies was 36.009 billion yuan, an increase of 4.65% year-on-year. Net profit of more than 100 million yuan per day.

SAIC Motor's good performance in the past year was mainly due to the bucking growth of auto sales in the cold winter of the auto market. In 2018, SAIC's revenue from the automobile manufacturing industry was 887.626 billion yuan, a year-on-year increase of 3.46%, of which 667.308 billion yuan came from vehicle sales, a year-on-year increase of 1.6%, and the gross profit margin of the vehicle business was 11.45%. Facing the cold winter of the auto market, which has experienced negative growth for the first time in nearly 28 years, in 2018, SAIC Motor's vehicle sales bucked the trend and sold 7.052 million new vehicles throughout the year, a year-on-year increase of 1.8%, which was 5.6 percentage points higher than the overall market growth rate. Among them, the sales of new energy vehicles reached 142,000, a year-on-year increase of 120%, achieving a "double-fold" growth for the fifth consecutive year. The sales of pure electric vehicles increased by 196.3% year-on-year to 65,000.

**Table 1.** Major accounting data in the past three years

Accounting data	2018	2017	2016
Total operating income	902,194,064,732.24	870,639,427,000.07	756,414,060,141.04
Revenue	887,626,207,288.41	857,977,717,906.64	746,234,636,304.31
Net profit	36,009,210,583.83	34,410,339,492.71	32,005,700,516.10
Net profit after non-recurring gains and losses	32,409,013,305.15	32,915,755,236.71	30,328,970,857.53
Net cash flow	8,975,654,791.66	24,301,071,935.41	11,360,916,342.78

Note: Currency type: RMB; Currency unit: yuan.

## 3. Analysis of the Status Quo of Knowledge Management in Shanghai General Motors

### 3.1. Knowledge Management Maturity Assessment Model and its Application

Knowledge management maturity is the effective degree of the organization or enterprise in the process of knowledge management development and implementation to clearly define, evaluate, manage and control knowledge management. The process evaluation of knowledge management can help enterprises recognize the problems and deficiencies in the knowledge management process of the enterprise itself, so that knowledge management has the form richness and method consistency in the implementation of the process. The knowledge management maturity model is a model for evaluating and analyzing the knowledge management level of an enterprise or organization. It can evaluate, analyze and manage the process of knowledge development, collection, storage, analysis, acquisition, transmission, and

sharing, so as to help enterprises form a complete set of tools and methods, distinguish the level of enterprise knowledge management, and identify problems. The root-knot prescribes the right medicine.

The steps of knowledge management maturity assessment are divided into three steps: internal interviews, questionnaire surveys, and comparison with external benchmarks. Internal interviews are qualitative analysis in the assessment of knowledge management maturity. Through interviews, the relationship between the organization's business strategy and knowledge strategy can be recognized, and the organization's existing knowledge management practices and information on the current status of knowledge management within the demand can be understood. The questionnaire is a quantitative assessment of the maturity of knowledge management, and the current stage of knowledge management is found through the comparison of scores. Adapting to external benchmark comparisons is mainly to find out the strengths and weaknesses of organizational knowledge management by comparing with benchmark companies from the four dimensions of people, knowledge, systems, and management, to provide a reference for future development.

### 3.2. Analysis on the Status Quo of Knowledge Management in Shanghai General Motors

Since 2006, various departments of General Motors have used GDM and shared disks to accumulate knowledge and documents. With the time, coupled with the lack of sustained and strong promotion and unified management, knowledge has been precipitated and chaotic. Knowledge management is more of departmental behavior, and each department has a different investment in knowledge management, resulting in uneven knowledge management levels. Various special seminars are held regularly within each department, and there is also a system to ensure that special personnel conduct summaries of experiences and lessons, and organize corresponding learning. However, the degree of knowledge sharing between departments and departments is poor. All departments are equipped with full-time or part-time knowledge management specialists, but there is no corresponding organizational guarantee at the company level to uniformly promote the corresponding work. Based on the above reasons, GM established a company-level knowledge management work promotion group led by HR in early 2016 to effectively promote knowledge management work across the company.

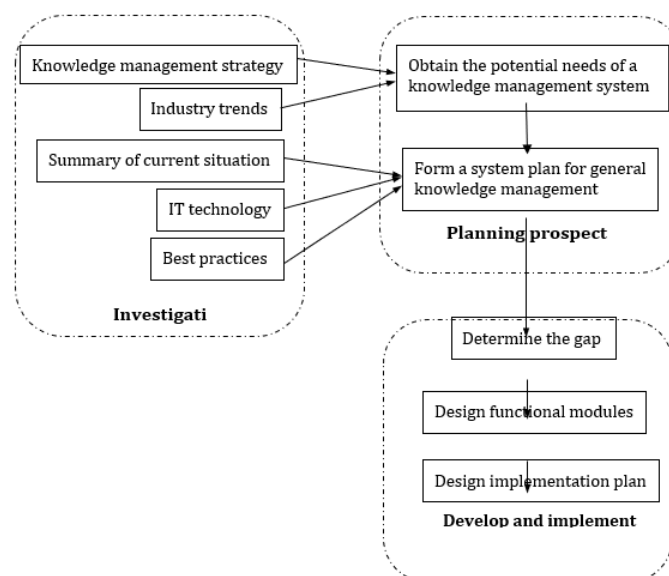


Figure 1: Knowledge management planning ideas

The goal of knowledge management is to plan, sort out, integrate and manage the company's knowledge resources from the strategic height of the company. Five platform mechanisms have been established: The knowledge precipitation platform is a platform for inheriting GM's high-quality knowledge assets and continuously innovating knowledge assets; the knowledge sharing platform is the basis for knowledge sharing between departments and can promote the company's knowledge sharing and integration. Establish a long-term mechanism to encourage employees to share knowledge internally; the expert assistance platform is managed and assisted by the company's experts; the employee mutual assistance platform is an effective collaboration between employees of different business lines, and is also an effective precipitation and sharing of unsystematic knowledge; management promotion mechanism. It is through the project to gradually establish a relatively stable and effective management promotion mechanism.

The scope of the knowledge management project integrates the needs of large-scale manufacturing, product engineering, and procurement, and distributes the implementation to establish a company-level knowledge management system. The implementation departments of the production base include: vehicle quality department, engine quality department, planning logistics department and production technical support. The system is launched in stages. The first stage realizes the basic functions of knowledge management, such as homepage, personal page, knowledge publishing and sharing, knowledge search, and knowledge questions and answers. The second stage implements advanced functions and optimizes user experience, such as optimization of search result pages, definition of knowledge evaluation indicators, knowledge communities, and knowledge statistical analysis.

Knowledge management projects use knowledge management concepts and methods to guide the establishment of a knowledge management system platform. As shown in Figure 1, the overall plan of the project is divided into six stages: project preparation and start-up, status quo investigation and analysis and evaluation, knowledge system combing and supporting management mechanism, e-scheme planning and design, later promotion planning and system application. In the current situation investigation and analysis evaluation stage, it includes research interviews, questionnaire surveys, KM current situation analysis and evaluation, and KMS technical requirements investigation. Shanghai General Motors Corporation conducts a comprehensive analysis of the feedback results of the survey questionnaire and scores the maturity of GM's knowledge management. The knowledge management maturity level of Shanghai General Motors is at the beginning of the fourth level "collaboration level". The overall performance of knowledge management is roughly similar to the typical performance of this level but slightly different: Shanghai General Motors internal sharing and learning atmosphere Better, willing to help others, share knowledge, and have a good foundation of knowledge; employees can trust and cooperate with each other in work collaboration, and use and accumulate experience and knowledge on a local scale, but they lack the ability to transform tacit knowledge into explicit knowledge. Process; no systematic knowledge management organization has been established, the existing knowledge is relatively scattered, the company has similar knowledge management software, but it is not convenient to find the application, the document classification standards of various departments are inconsistent, and there is a lack of effective means to support the knowledge documents between departments shared. The stage of knowledge system combing and supporting management mechanism includes knowledge document system combing, supporting management mechanism, construction plan report and system prototype design. The knowledge system combing is divided into three rounds: based on the results of department combing, classification and summary, and repeated communication to form 4 sets of classified management plans, and finally based on plan optimization. The planning and design phase of the E-scheme includes management mechanism construction, system deployment, system testing and system development. The

later promotion and planning stage includes publicity activity planning, project summary report, online operation and support, and system application training.

## **4. The Promotion Strategy of Shanghai General Motors' Knowledge Management**

### **4.1. Analysis of the Risks and Problems Faced by the Advancement of Knowledge Management**

The promotion strategy of Shanghai General Motors Corporation's knowledge management conducts risk and problem analysis according to the four levels of knowledge management maturity:

Cultural dimension: lack of leadership support and encouragement, lack of continuous knowledge management promotion and promotion, lack of knowledge management training, especially training for key employees, and different understanding of knowledge management among employees.

Knowledge dimension: scattered knowledge and lack of uniform standards make finding knowledge cumbersome, difficult to accumulate, and time-consuming to acquire, store, transfer, and apply. The quantity and quality of knowledge need to be improved, and the degree of reusability of knowledge is not high.

Management dimension: There is no overall knowledge management organization structure of the group and grassroots units, knowledge management is difficult to advance, knowledge management is not linked to individual performance, knowledge management process is not standardized, and the authority setting is simply divided by unit department and secret level, which cannot meet knowledge management demand.

System dimension: The required information cannot be obtained in a timely and effective manner, and the system functions need to be improved.

### **4.2. The Promotion Strategy of Knowledge Management**

Cultural dimension promotion strategy: Knowledge management is an important step in the process of building a learning organization. The construction of a learning organization is also an inherent requirement of the corporate culture of Shanghai General Motors. Leaders should openly support and encourage, show employees Shanghai General Motors' determination and goals for knowledge management, unify thinking, and clarify goals. The continuous promotion of knowledge management propaganda, the propaganda of purpose knowledge management builds momentum, let employees understand knowledge management through multiple channels, and establish knowledge management confidence.

Knowledge dimension promotion strategy: unify group classification principles, design of knowledge catalog and troupe-level knowledge map, the purpose is to unify the management of knowledge and realize the effective accumulation of knowledge at the enterprise level. Using the knowledge history diagram, the knowledge management and business are closely integrated, the purpose is to accumulate process data, improve the quality of knowledge, and increase the reuse rate of knowledge.

Management dimension promotion strategy: Establish a three-level knowledge management organizational structure for Shanghai General Motors' knowledge management, with the purpose of unified management of knowledge at the group level to ensure the smooth advancement of knowledge management. The purpose of formulating knowledge management regulations and systems is to clarify the principles of knowledge management and standardize the process of knowledge acquisition and storage. Develop a unified authority system within the group, the purpose is to achieve maximum knowledge sharing under authority matching.

System dimension promotion strategy: The construction of a unified knowledge management platform within the group is aimed at improving the efficiency of knowledge use and unifying communication channels.

## 5. Discussion and Conclusions

With the arrival of the era of knowledge economy, knowledge management as a brand new management concept has been accepted by most companies and has been elevated to the height of corporate strategy. As an intangible asset of an enterprise, knowledge is the core competitiveness of an enterprise, and it is a key factor affecting the development of an enterprise. Through the study of Shanghai General Motors' knowledge management system, this paper discusses the implementation of knowledge management, and through the successful summary of Shanghai General's knowledge management practices, it makes useful explorations on the implementation of knowledge management. Starting from the development strategy and corporate culture of General Motors, through the assessment of the knowledge management maturity model, we understand the current status of knowledge management and the needs of knowledge management of Shanghai General Motors. On this basis, we propose a framework for the implementation of corporate knowledge management, that is, from the perspective of culture and management. The four dimensions of, knowledge and system are used to construct the framework.

This article has conducted a preliminary discussion on the methods and principles of knowledge management evaluation, and put forward suggestions on the construction strategies of knowledge management in the four aspects of culture, management, system and knowledge. Knowledge management as a broad field needs continuous exploration.

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