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# Research Report of China's Optical Industry

## (Abstract)

### ***Importance***

Eyes are among the most important organs of human bodies. Vision is the most important information channel for human beings, affecting the quality of human lives in a most profound way. China has the largest population with vision-defect in the world. An estimation of 610 million to 650 million people in China has either presbyopia or myopia. It is crucial for China's optical industry to develop in accordance with China's increasing demand for vision health.

As the society and economy of China enter the phase of transformation, three opportunities are presented in front of China's optical industry. The demand for vision care in China expands, the industry presents demand for merging, and the health services industry is gaining support in terms of government policy.

### ***Challenges***

China's optical industry has encountered several problems as the labor cost rises. The problems are as follows:

In the manufacturing sector, the excessive number of existing companies forms a low-concentration market, in which most companies possess neither up-to-date production technology nor research and development (R&D) ability. The excessive number of companies also weakens government departments' abilities to supervise and regulate, thus the quality of optical products cannot be ensured, which in turn impedes the sustainable development of the industry.

The current financial system is insufficient to support R&D investments in the manufacturing sector or to revert the risk management practice of tier-by-tier price increase of the distribution (retail) sector. The profit of the manufacturing sector is lowered by the interaction between the two sectors, which further weakens its ability to invest in

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R&D. Meanwhile, companies in the distribution (retail) sector attempts to compensate the negative effects of tier-by-tier price increase by attracting customers with free eye exams, such practice raises the retail price of spectacles without reflecting the true value of professional vision care service.

The supervision and regulation policies on vision care companies is not fully enforced. Resources for licensing approval and regulation enforcement are insufficient. The promotion of free eye exams undermines the medical nature of vision care. Spectacles are treated as common goods and services, and customers are deprived of vision care services with quality.

The vision care professional training system is not well established. It is difficult to train and retain professionals in the vision care industry when qualified optometrists, reasonable incentive mechanisms, and the certification system for opticians are missing.

The reasons behind these causes are that the industry does not have a clear goal, the current regulation is unreasonable, and the professional training system is underdeveloped.

### ***International Trends***

The development of the international optical industry has shown us that developed countries have formed effective spectacles quality assurance systems and vision care licensing and professional training system, refraction cost and health insurance reimbursement policy has been standardized. The global optical industry shows a trend of merging and upgrading.

In terms of quality assurance in the optical manufacturing industry, the EU classifies corrective spectacles and frames as Class I Medical Devices and regulates these products under the CE marking certification scheme. The United States uses non-government organizations of standardization as references, and combines FDA regulation with industry self-regulation.

In terms of the licensing of vision care companies, many developed countries requires professionals, especially registered opticians, to supervise and participate in company business. The qualification for optometrists and opticians are strict, especially for those

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serving children.

The 3 “O” system, namely ophthalmologists, optometrists, and opticians, has become the foundation of vision care in many countries. Developed countries have formed comprehensive education systems for each “O” s, which generally require the completion of a certain level of education (usually at least an undergraduate degree), receiving professional training and passing professional exams, and possessing strong professional skills. Opticians in France are specified as an occupation that is both medical and commercial in nature. They must receive professional training, so that they can cooperate and coordinate with optometrists, thereby integrating production, education and research.

Most developed countries have standardized the cost of refraction, statutory health insurance and commercial health insurance reimburses qualified refraction exams at a quota or proportionally. Reimbursement also covers costs besides refraction. Fourteen out of twenty-nine countries in the OECD nations have included refraction costs into the basic health insurance plan. Among the other fifteen countries, seven countries allow the inclusion of refraction costs into the basic health insurance plan by purchasing additional plans.

China is experiencing a process of concentration. Given the experience from international industry giants, China’s optical industry will go through a process of merging during development. Foreign capitals are promoting industrial mergers and acquisitions through both horizontal and vertical mergers that improves the industry’s competitiveness and value chain.

### ***Development Suggestions***

Based on the current situation of China’s optical industry and international experience, we provide the following suggestions.

A long term development plan of the optical industry should be established. The development goals, the production and service standards, and the financing and professional structures must be specified. The industry should serve for population vision health, specify requirements for market entry and service quality, and establish a

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framework of virtuous cycle that facilitates the functioning of the optical industry. In addition, mergers and acquisitions in the industry should be promoted in order to upgrade the industry and normalize the development.

**Details are as follows:**

1. Standardize refraction costs, and provide health insurance coverage for eye exams. Redress the free eye exam business model, and emphasize the medical professional nature of vision care. Cover part of refraction costs into the health insurance scheme, encourage regular eye exams in population to prevent vision deterioration.
2. Strengthen vision care professional training and service system. Specify professional duties of optometrists and opticians, and establish corresponding professional training system. Form career paths for optometrists and opticians and provide incentives for them to receive continuous training.
3. Strengthen the quality assurance system with reference to the managing models of developed countries. List optical lenses as Class I Medical Devices, and use the CE marking certification scheme to authorize independent third party institutions to validate products. Use industrial associations to maintain unobstructed channels for consumer right protection.
4. Establish a financing system that suits the needs of the optical industry. Lower sales costs by expanding and diversifying financing channels for the manufacturing sector and mitigating risks in the distribution (retail) sector.
5. Encourage and guide mergers and acquisitions between Chinese and foreign companies. Form an active market by breaking regional protectionism. Increase company efficiency by strategically import foreign capital.
6. Encourage private institutions to participate in the establishment of vision care professional system by cooperating with existing vision centers established by medical schools and hospitals and participating in optometrist and optician professional training.

Through the analysis and suggestions in this report, we hope relevant government departments would recognize that the optical industry is a professional service industry, and establish a suitable support system for the industry, thereby promoting the development of China's optical industry and improving its service and product quality, and ultimately improving the Chinese population's vision health.

The report will be presented in the structure as shown in Figure 1. In Chapter II, we will give an overview of the status quo of China's optical industry. In Chapter III, we will analyze the causes behind the problems emerged in China's optical industry. In Chapter IV, we will go through the development trend in the global optical industry. Some industrial development suggestions of the 13<sup>th</sup> "Five-Year" Plan will be given in Chapter V. An appendix on the survey of China's optical industry is also included in this report.

Figure: Report Structure

