

**Study on the Contribution of Certification to Economic Growth :
Survey from Certified Companies in Guangdong Province of China**

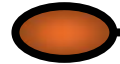
Tang Xiaofen

President, Shanghai Academy of Quality Management

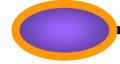
June 9,2007

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1.1 About Shanghai Academy of Quality Management (SAQM)



Established on Jan 28, 1999

1.1 About Shanghai Academy of Quality Management (SAQM)

- SAQM is the first quality research organization in China which integrated quality research, quality training, quality management consultancy, quality assessment and information service functions.
- SAQM has undertaken altogether more than 50 projects funded by NSFC, Ministry of Science and Technology , State Administration of Quality Supervision, etc.

1.2 Introduction

A great project of “the Research and Demonstration of Key Technology of Certification & Accreditation”

(NO.2005BA909B) was initiated in 2005 by the Ministry of Science and Technology in China.

Supported by the project, we focus on the certified companies in Guangdong and analyze the contribution of certification to economic growth.

2.1 Summary of economic development and certification status in Guangdong province in 2005

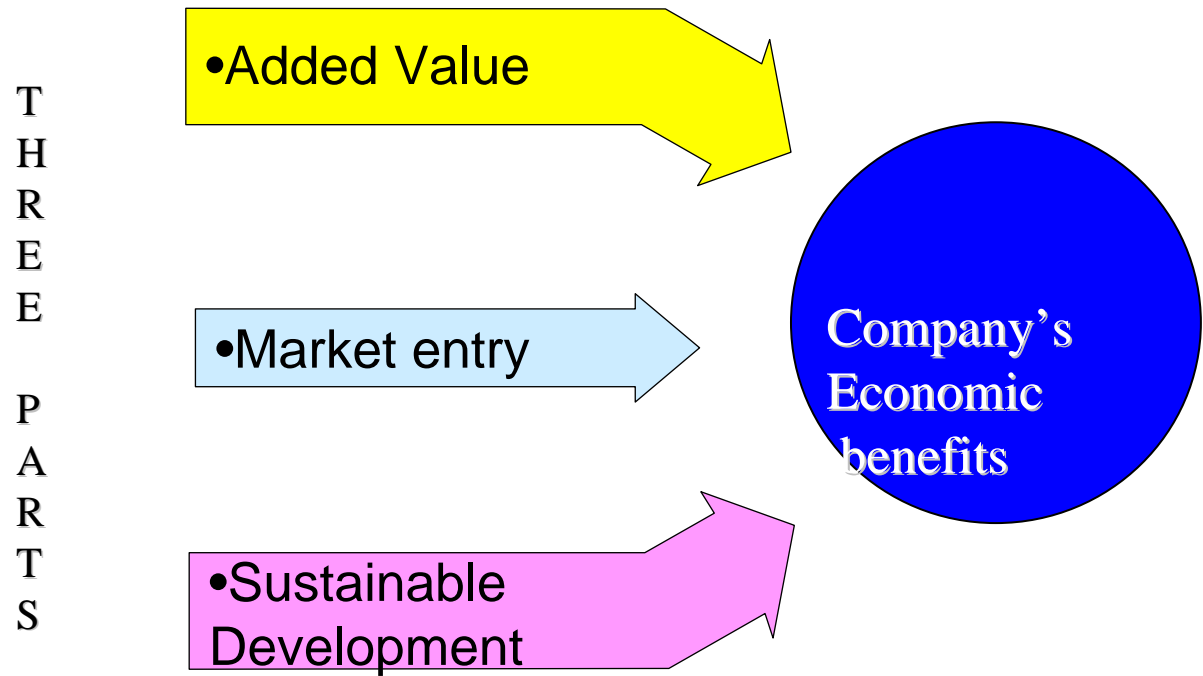
2005年	GDP (1 Billion Yuan)	Exports (1 Billion Dollars)	Certification
Guangdong	2170.128 Rank first in China	238.16 Rank first in China	The numbers of certificates on MS and Product certification ranked TOP1 in China

2.2 Design of questionnaire

We did three preliminary surveys in Shanghai from Mar. to Jun.,2006.The objectives include the following aspects:

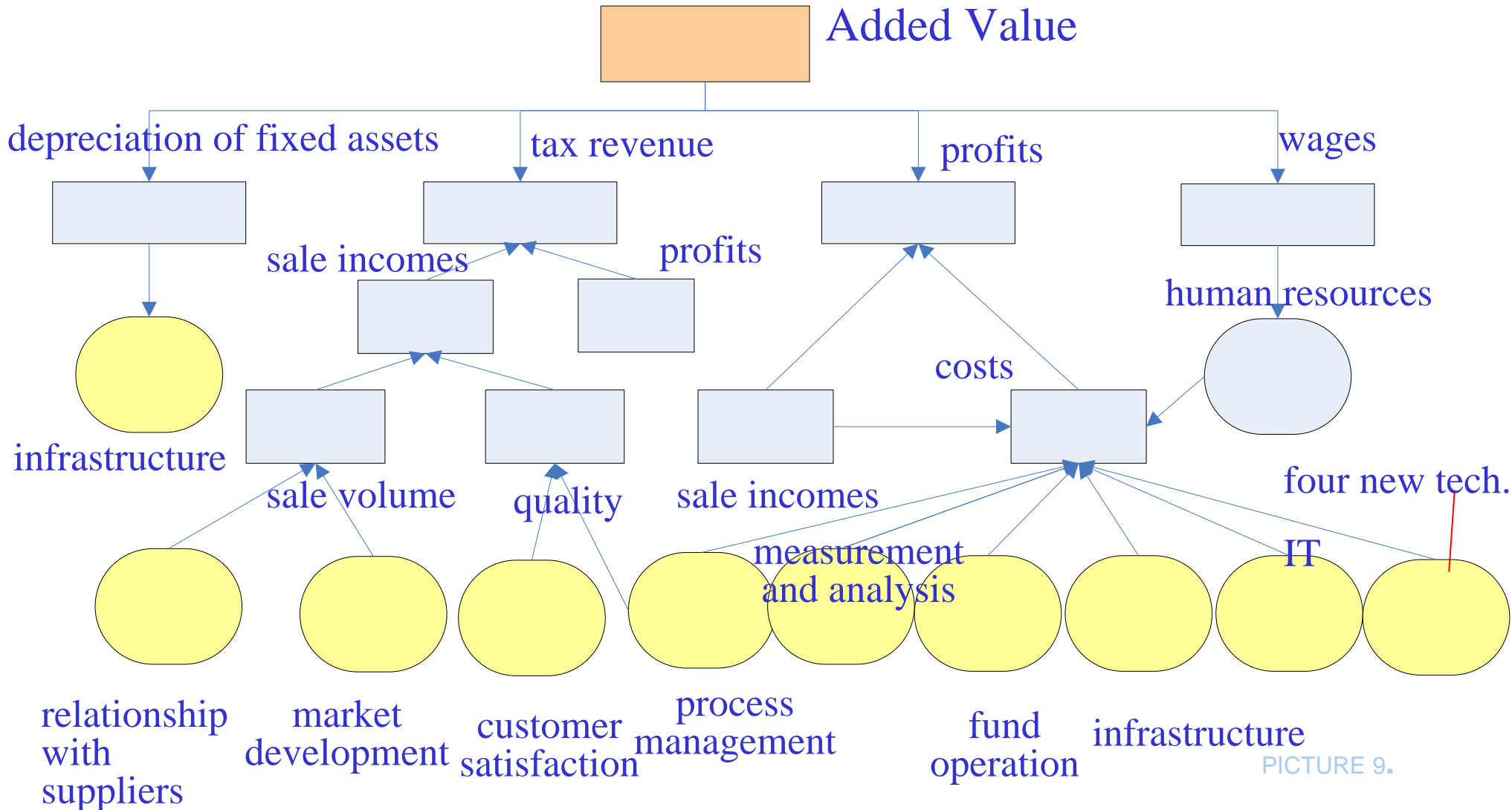
- Identify the factors influencing firms' performance
- Identify the departments influencing firms' performance
- Identify questionnaire precision
- Verify the measurement & calculation model of certification contribution

Identify 20 Key Factors influencing company's economic benefits from three aspects



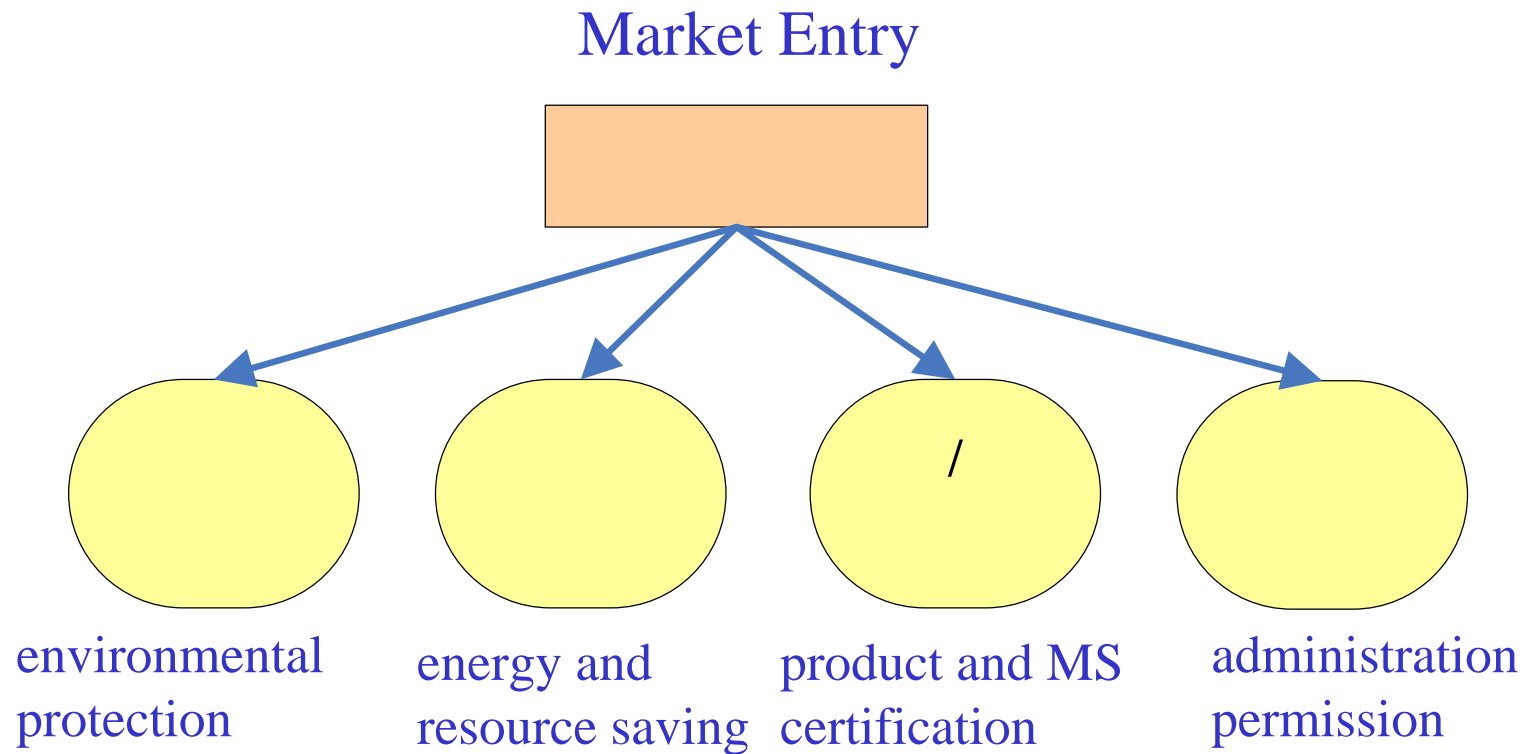
PICTURE 8.

(1) the Added Value

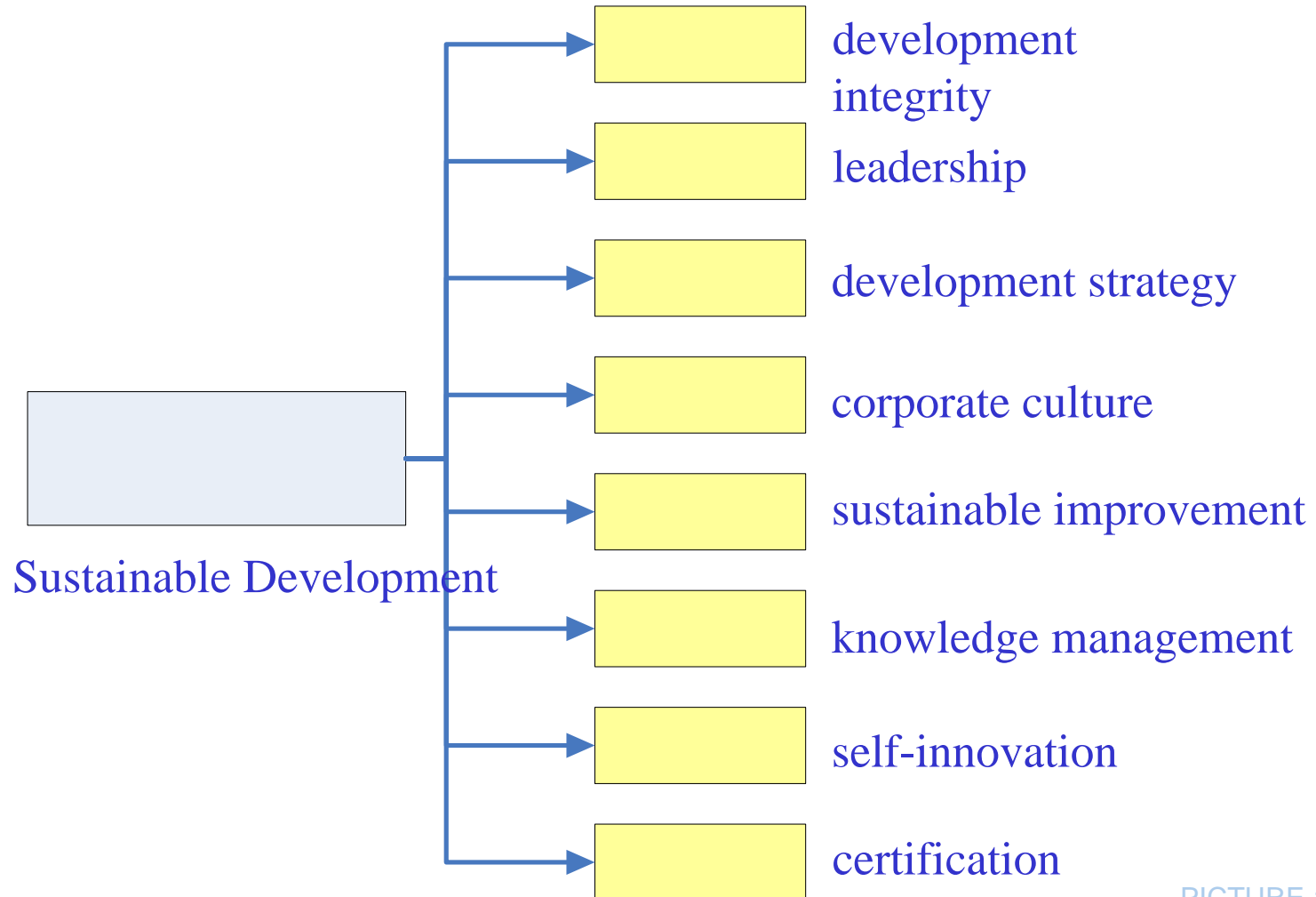


PICTURE 9.

(2) Market Entry



(3) Sustainable Development



PICTURE 11.

Determined 20 key factors influencing company's economic benefits

Factors	Factors
1. leadership	11. infrastructure
2. corporate culture	12. Information system
3. environmental protection	13. four new technologies application
4. energy saving	14. self-innovation
5. Development integrity	15. relationship with stakeholders
6. development strategy	16. process management
7. market development	17. measurement and analysis of performance
8. customer satisfaction	18. knowledge management
9. human resources	19. sustainable improvement
10. fund operation	20. product and MS certification

■ Identify the five key departments influencing company's economic benefits

Dep. 1	Dep. 2	Dep. 3	Dep. 4	Dep. 5
Manufacture (service or engineering management)	Quality /technique	Purchasing and supplying	marketing	Administration

■ Design of Questionnaire

获证企业认证作用调查问卷

(制造业)

编号: _____

一、企业基本情况

1. 企业名称 (盖章): _____
2. 企业注册时间: _____ 企业职工总数: _____
3. 填表部门: _____ 填表人: _____ 联系电话: _____
传 真: _____ Email: _____
4. 主要填表人参与认证相关工作经历 (请在相应数字处打√):
1) 不足1年 2) 1-3年 3) 3-5年 4) 5-10年 5) 10年以上
5. 本企业参与问卷填写的人数: _____
6. 企业性质 (请依据企业工商登记情况, 在相应数字处打√, 可多选):
1) 国有及国有控股 2) 集体 3) 股份合作 4) 联营 5) 有限责任公司
6) 股份有限公司 7) 私营 8) 港澳台投资 9) 外商投资 10) 其它 (请列出) _____

二、企业选择认证机构的关键因素

请在相应数字处打√, 最多选择3项:

1) 认证机构知名度	2) 认证机构服务水平	3) 认证机构所在地远近
4) 对审核员能力认同	5) 认证成本	6) 咨询公司推荐
7) 主管/行业部门规定	8) 其它 (请列出) _____	

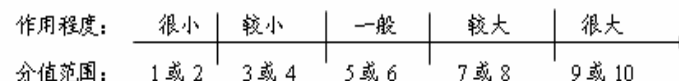
三、目前我国认证机构存在的主要问题

请在相应数字处打√, 最多选择3项:

1) 认证市场不规范	2) 审核员综合能力下降	3) 采用国际标准滞后
4) 认证后续监审不力	5) 获证后跟踪服务不足	6) 认证机构虚假宣传
7) 认证机构内部管理不规范	8) 其它 (请列出) _____	

2、效益影响因素在主要部门发挥作用的程度

请就企业效益影响因素在各主要部门所发挥的作用分别进行 1-10 分评价 (由各部门分别填写), 参考分值范围如下:



效益影响因素	部 门				
	生产制造	质量/技术	采购供应	市场营销	综合管理
领导力					
企业文化					
环境保护					
能源节约					
诚信经营					
发展战略					
市场开发					
顾客满意					
人力资源					
资金运用					
基础设施					
信息系统					
四新技术应用					
自主创新					
供方和合作伙伴关系					
过程管理					
绩效测量与分析					
知识管理					
持续改进					
体系/产品认证					

2.3 Sampling Scheme

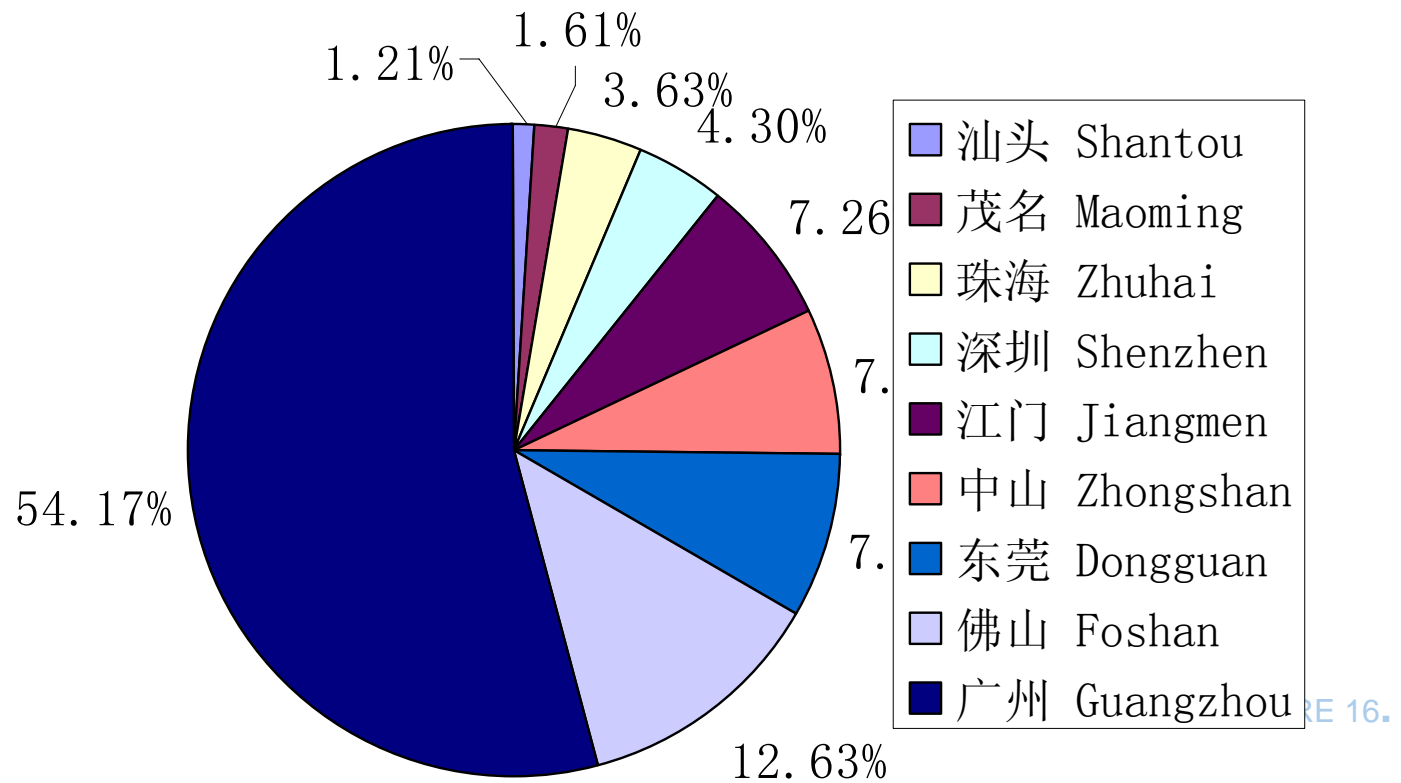
Select certified companies in Guangdong before Dec,31,2005

City	Sample Number
Guangzhou	922
Shenzhen	518
Dongguan	222
Zhuhai	114
Maoming	50
Shantou	116
Jiangmen	100
Foshan	248
Zhongshan	121
Total	2411

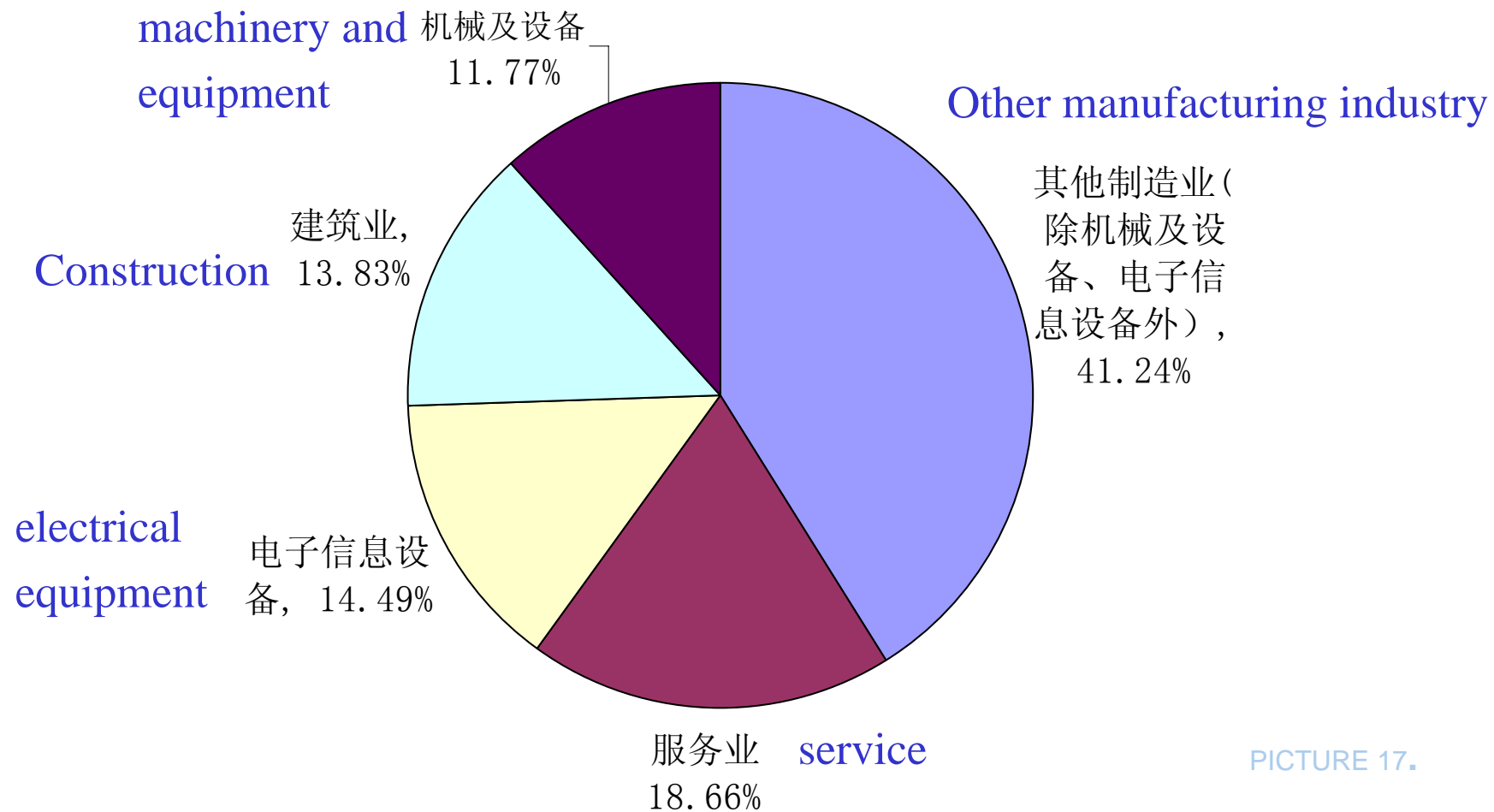
2.4 Questionnaire Survey

744 effective questionnaires were returned. Return rate is 30.86%.

Returned samples— categorized by city

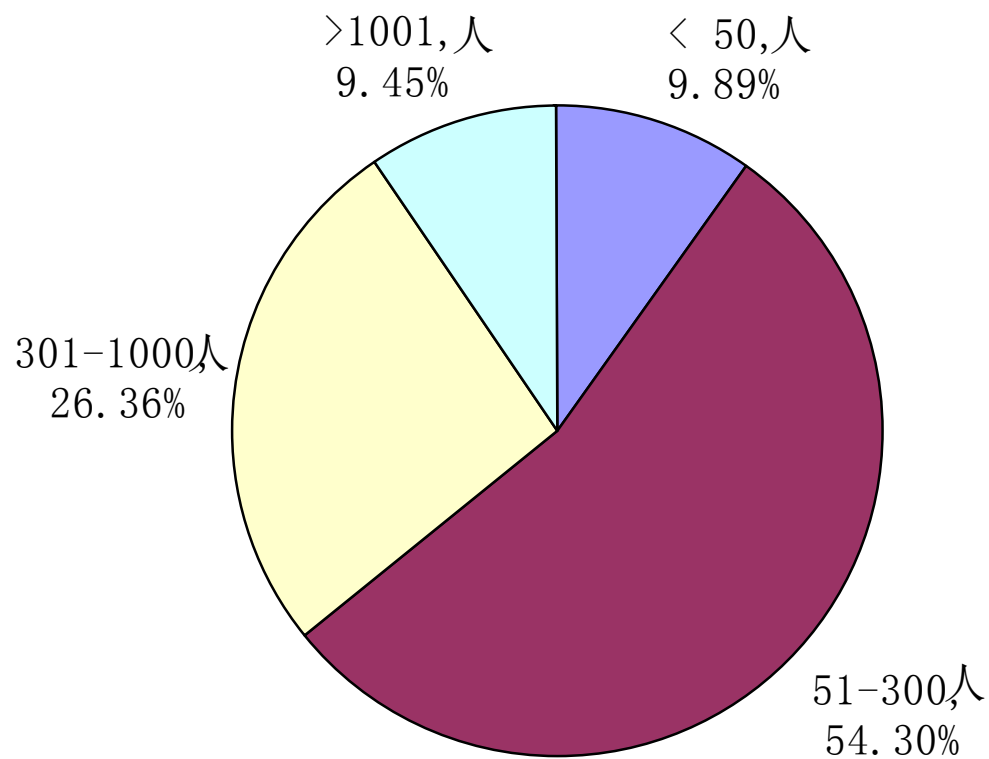


Returned samples - categorized by industry



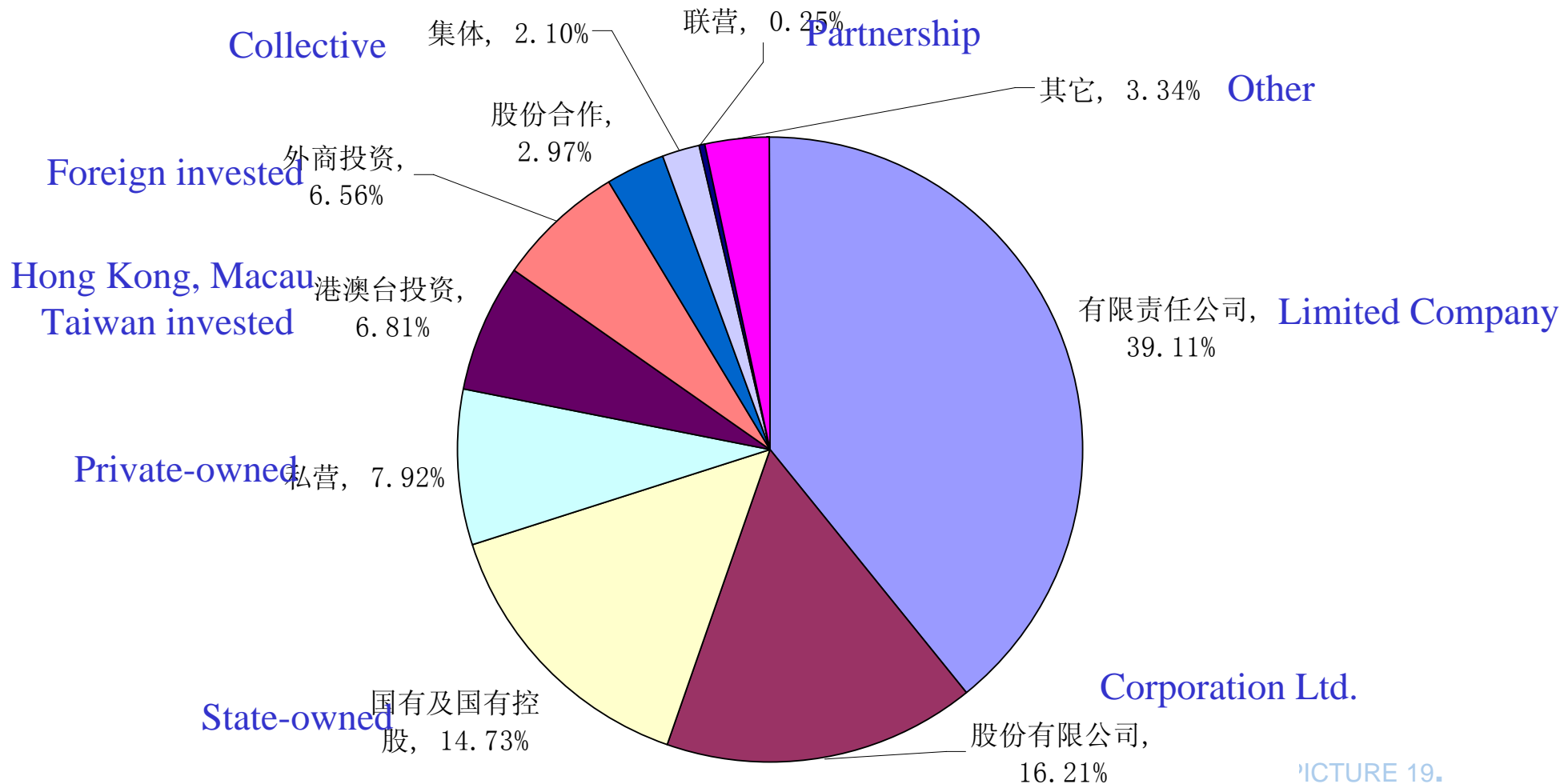
PICTURE 17.

Returned samples – categorized by company size



PICTURE 18.

Returned samples — categorized by company ownership



3.1 Effects of certification to companies' benefits growth

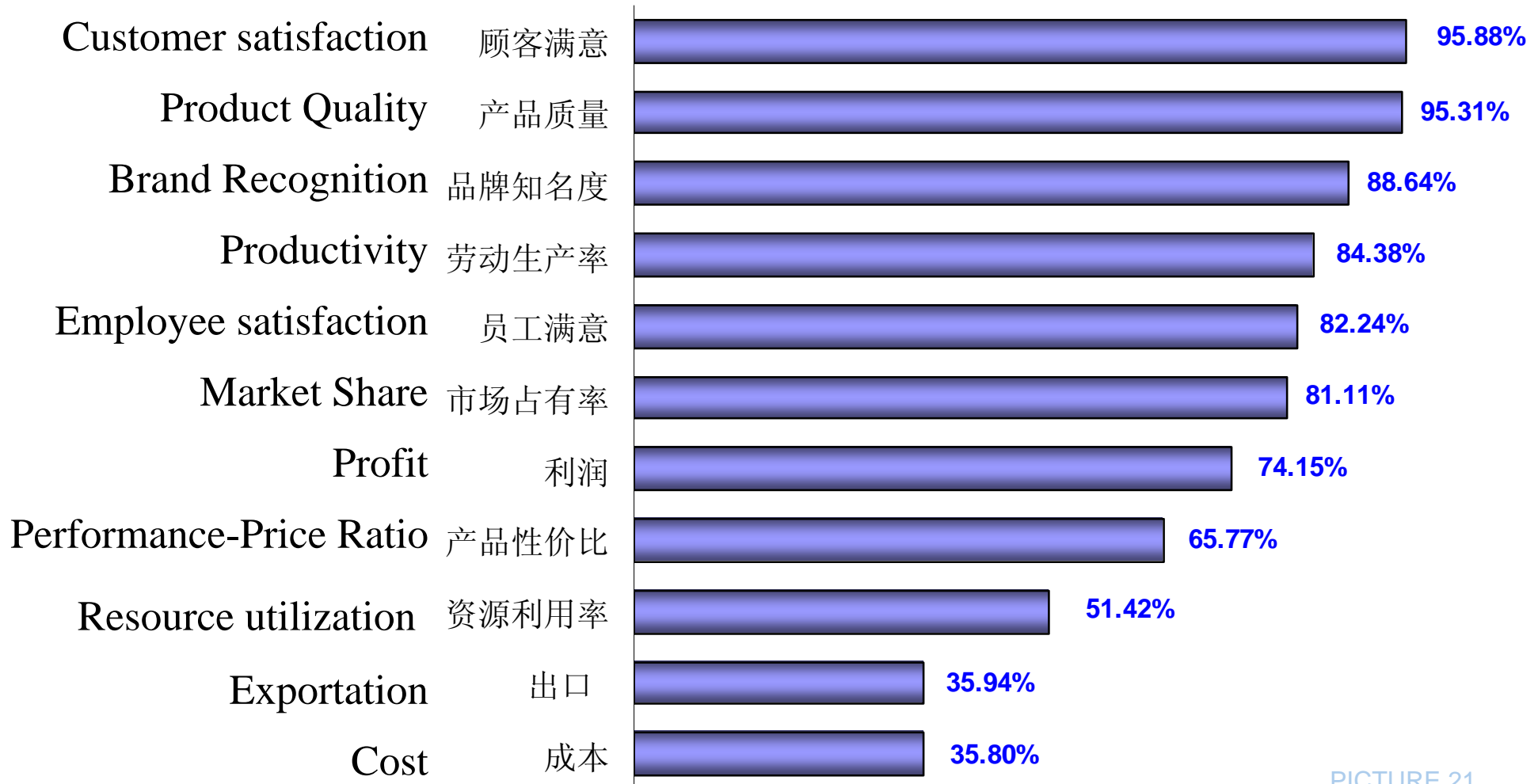
(1) General Feedback

71.87% companies confirmed that the certification has obvious effects on companies' economic benefits.

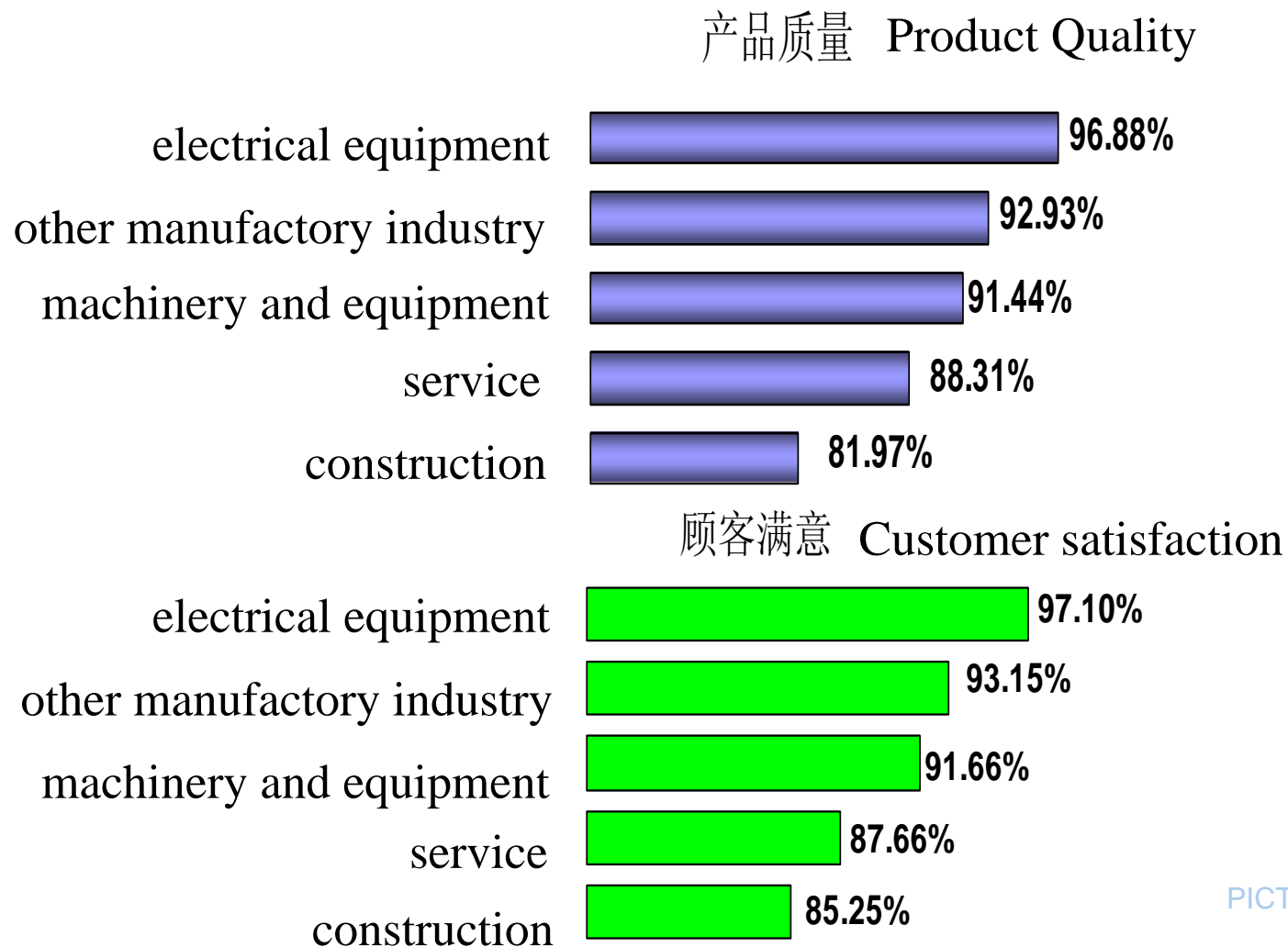
- 95.88% companies believe certification improved customer satisfaction.**
- 95.31% companies believe certification improved product quality.**
- 88.64% companies believe certification improved brand recognition.**
- 84.38% companies believe certification improved productivity.**

具体情况:

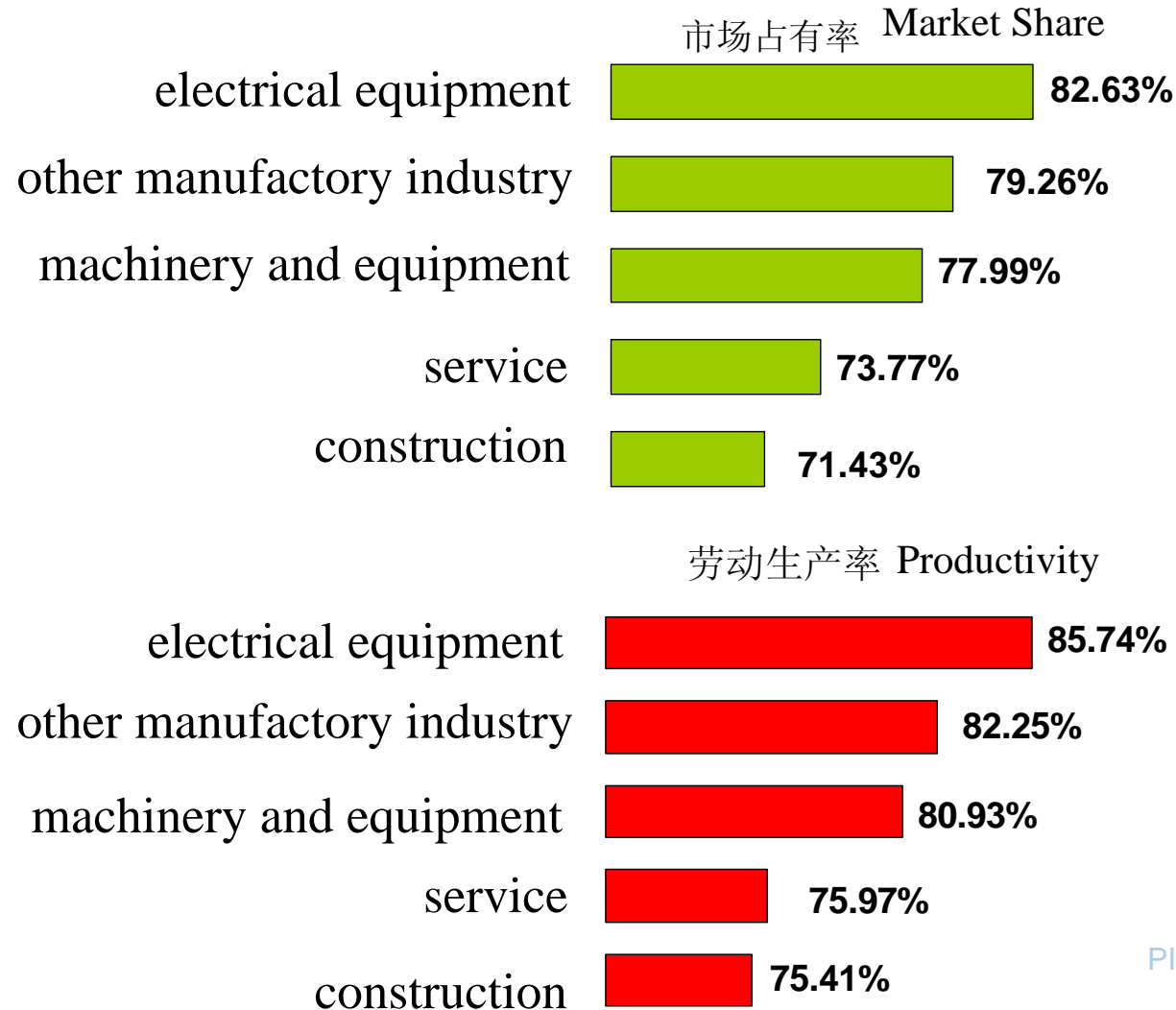
Details:



(2) Certification effect-categorized by industry



(2) Certification effect-categorized by industry



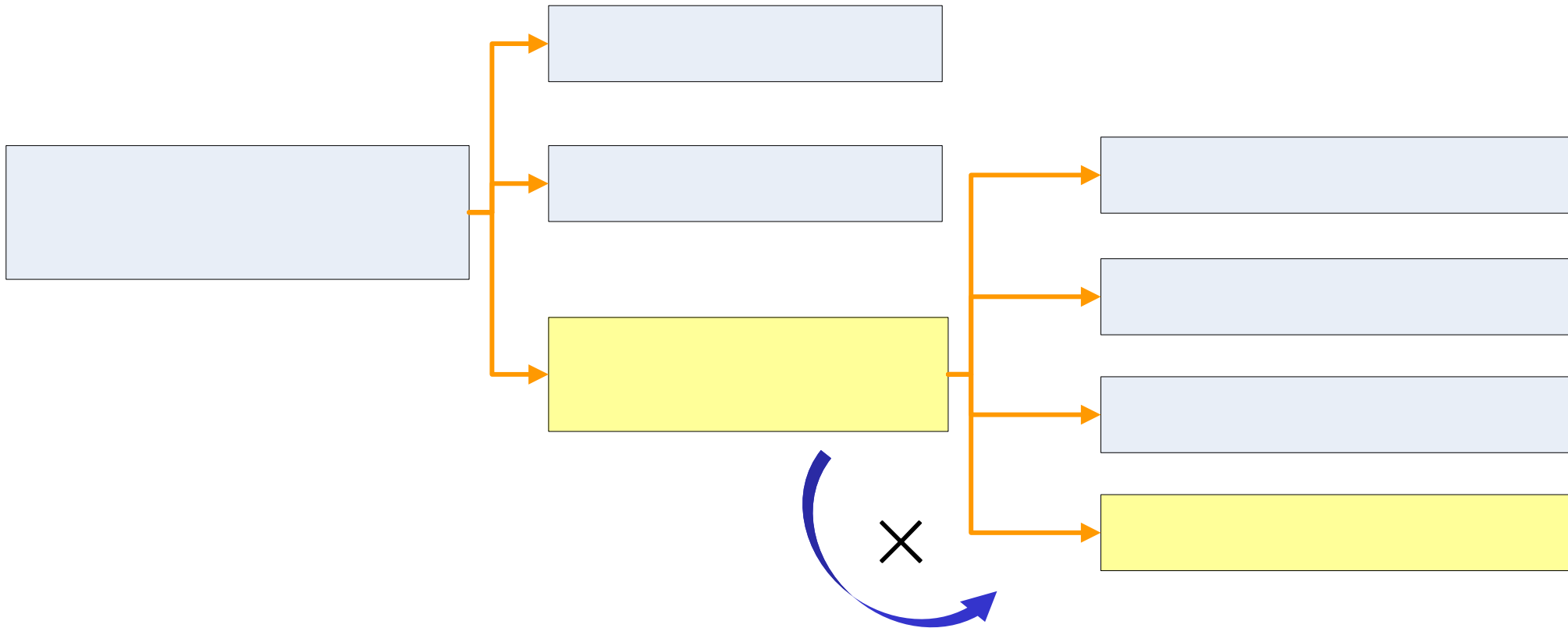
3.2 Certification contribute rate to economic growth of Guangdong

Calculating the contribution rate of certification to economic growth by means of quantitative methods

■ Compound Linear Matrix

部门及其权重		部门 1	部门 2	.....	部门 n	因素运营绩效	因素潜在绩效	因素运营效率	因素相对贡献
		w_1	w_2		w_n				
因素 1	c_1	a_{11}	a_{12}		a_{1n}	y_1^p	y_1^q	e_1	g_1
因素 2	c_2	a_{21}	a_{22}	.....	a_{2n}	y_2^p	y_2^q	e_2	g_2
.....								
因素 m	c_m	a_{m1}	a_{m2}		a_{mn}	y_m^p	y_m^q	e_m	g_m
部门运营绩效		z_1^p	z_2^p		z_n^p				
部门潜在绩效		z_1^q	z_2^q	.....	z_n^q				
部门运营效率		f_1	f_2		f_n				
部门相对贡献		h_1	h_2		h_n				

■ Solow Residual Method



PICTURE 26.

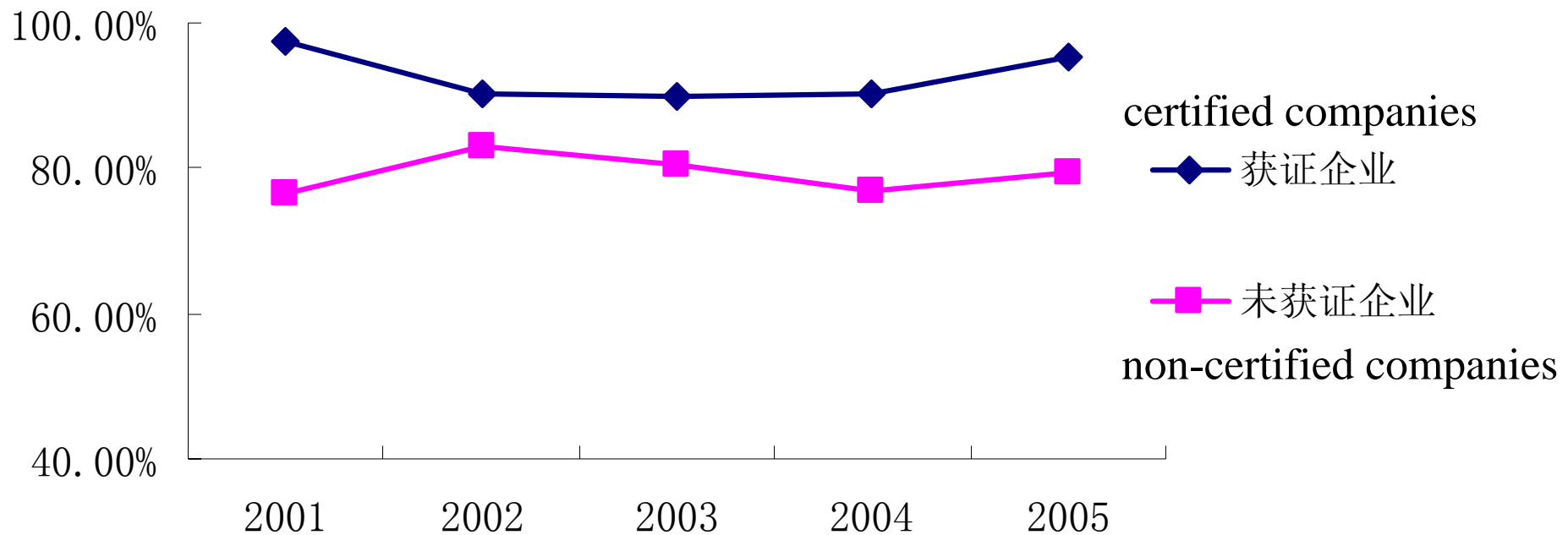
3. 2. 2 Pulling rate of certification to Guangdong economic growth.

$$\text{certification pulling rate to GDP growth of Guangdong} = \frac{\Delta \text{added value of certification}}{\Delta \text{GDP}} \times \text{Growth rate of GDP}$$

3.3 Obvious quality difference between certified and non-certified companies

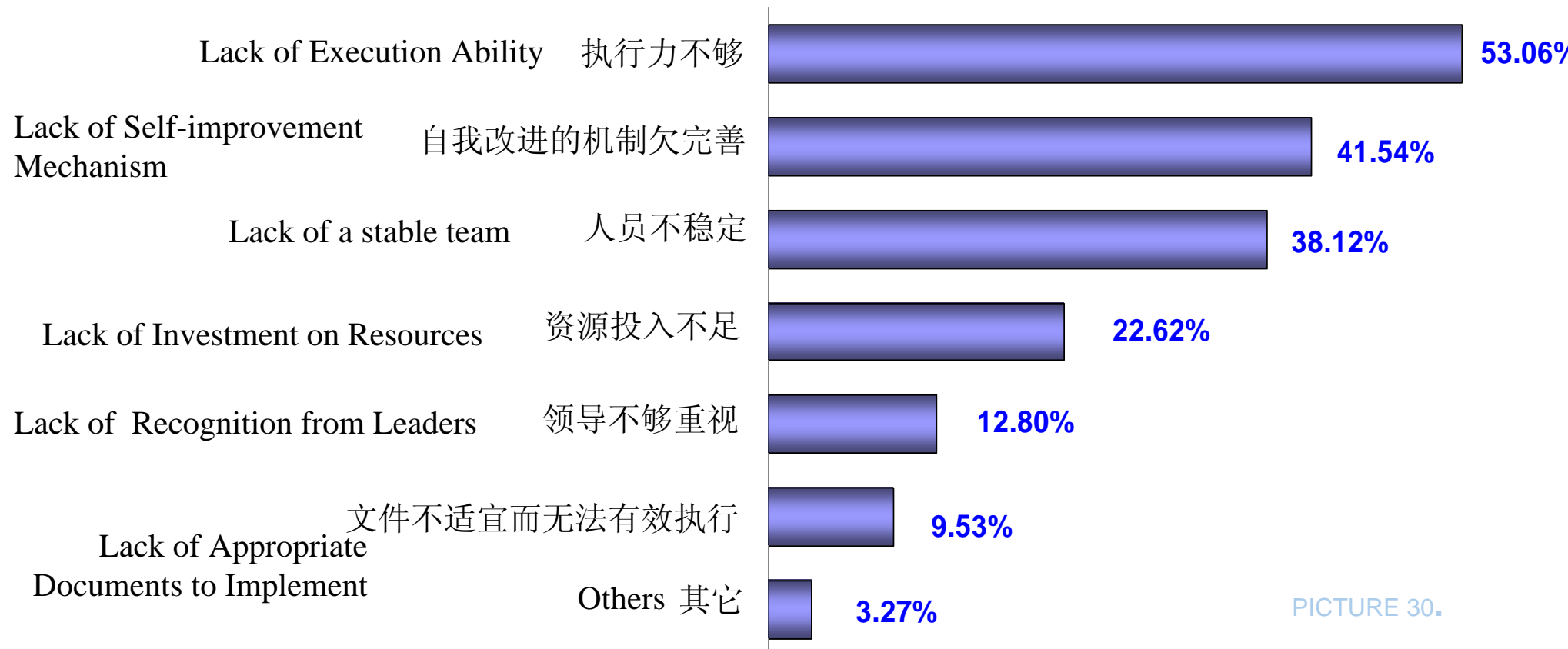
The analysis is based on the data collected via China's compulsory qualification rate sampling test to shanghai products during 2001 to 2005.

Average product qualification rate of certified companies is 92.06% and 79.14% for non-certified companies



四、 Suggestions from Certified Companies to Certification Organizations

4.1 Problems about Certification Organizations viewed by Certificated Firm



PICTURE 30.

4. 2 Suggestions for Certification Organizations from Certificated Companies

- (1) 25.6% certified companies suggested to reinforce the follow-up services and communications with certified companies.
- (2) 15.0% certified companies suggested to improve auditors' capability and auditing level.
- (3) 7.1% certified companies suggested to strengthen monitoring after certification.
- (4) Certified companies suggested to speed up the examination and approval, reduce the certification approval duration, so as to improve working efficiency.
- (5) Certified companies suggested to strengthen the depth of onsite audit and focus on the effectiveness of the management system operation.

5、 Conclusions

- (1) By certification, the economic benefit of companies is improved.
- (2) Chinese certification market should be further developed, and the capability and quality of certification organizations and auditors are different to some extent. The vicious competition among certification organizations has undermined the effect of certification.
- (3) It is required to further strengthen the supervision of the certification market.

Thanks