

# Identification And Synthesis Of Business Performance Improvement Factors Framework Of Iso Management System Standards Certified Companies

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## ABSTRACT:

This paper aims to conduct a meta-analysis of the literature reporting implementation of ISO management system standards certified companies to identify and synthesize the Business Performance Improvement Factors Framework. Contemporary literature abounds with national and global implementation reports that ISO certification has a positive association with the Financial, Managerial, Social, Cultural and Technical aspects of business performance. Although, a constant demand for ISO certification bears testimony to these findings, yet empirical evidence reported in literature needed to be reviewed and synthesized to get a holistic view in a Framework. The implementation of ISO management system standard certification improves all the major business performance parameters like; efficiency of operations, increasing productivity, quality awareness, greater customer satisfaction, increase company sales and market share, improved company culture, etc. Hence, business growth, profitability, image, and sustainability chances increases. These features directly contribute to the improvement of the national GDP. National performance is linked to the SDG millennium goals set by the UN. These two cascaded performance improvement objectives lead to higher local and global prosperity, social uplift and sustainability. The discussions and conclusions of the current research find inspiring values for non-ISO management system standards-certified companies to harness from its implementation, thus yielding advantages in improving competitiveness both at home and across the borders.

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**Keywords:** ISO Management System Standards Certification, Business Performance Improvement Factors Framework, Growth, Sustainability, GDP, and SDG.

## INTRODUCTION

Research has proven shreds of evidences of the effect of ISO management system standard certification recommended practices to increase sales and customer confidence and ultimately working as a tool to guide marketing and minimize the challenges arising in the modern business arena. It is used to ensure that business operations are efficient, easy to access new markets, and increase productivity. The

benefits reaped from the ISO management system standards certification are not only for the companies but also for the customers (Khalida, Fiaz, & Shoaib, 2014). (Juana et al., 2016) (Fahmi et al., 2021).

The benefits of ISO management system standard certification can be classified as external and internal (Fonseca and Domingues, 2018; Phan et al., 2016). Customer satisfaction, increase in sales, increase in market shares, and

increasing the quality of products fall under the external benefits (Prajogo, 2011; Calvo et al., 2016). Employee satisfaction, communication, operational efficiency, and strong after-sales services are internal benefits (Zimon et al., 2016; Boiral, 2003). Such business performance of a country with a majority of ISO standards management system certified can increase Gross Domestic Products (GDP). Such growth normally helps in the achievement of the SDG (Sustainability Development Goals) set by the United Nations (UN) for the countries (United Nation Foundation, 2021). A large number of research publications reported in the top-rated journals in the domain of ISO management system standard certifications companies revealed the following major business performance improvement factors.

### RESEARCH METHODOLOGY

The first and most important is the design of qualitative research methodology which include but not limited to; selection of search engine / platform like; to identify the reputable research journals, to find relevant empirical data. The second stage is to select the prominent ISO implementation cases deals with experience and results sharing. The 3<sup>rd</sup> stage is to critically analyse each case study results to focus on the important performance improvement factors. Staggering / grouping of cases into batched for easy recognition and treatment. The next stage is to synthesize the overall identified performance improvement factors due to ISO management system standards implementation certification. The last stage is the review by focus group to get a consensus outcome as a framework.

### LITERATURE REVIEW

Following the research methodology, an exhaustive search was done to identify the reputed journals relevant to publishing ISO management system standards certification cases and sharing experiences. As such ultimate result of this search end up at 100 most relevant, recent and recent past cases. These cases were staggered into 10 batches of 10 case studies

each. Now, each ISO implementation case study was critically analysed for identification of performance improvement factors as shown in Annex A to this research study report. Judgemental affiliation was used to synthesis / group similar / identical ISO implementation performance improvement factors. This was followed by focus group relevant to ISO management system standards certification like; trainers, consultants, users, academicians. Followings are the major business performance improvement factors identified, staggered, synthesised and reviewed.

### **Financial Performance: Financial Performance, Reduce Cost, Reduce Manufacturing Cost, Business efficiency, Sales Increased**

Many researchers have discussed the financial performance of ISO management system standards certified companies and found the association between financial performances, business efficiency, sales increase, and reduced manufacturing cost (Mekic & Dinc, 2017, Chatzoglou et al., 2015, Javorcik and Sawada, 2018, Iqbal et al., 2017, Magd & Curry, 2003, Said et al., 2021). The literatur and the focus group reviewed proposition is that; Financial Performance is positively and significantly related to Sales Increase, Business Efficiency, Risks Minimization, Reduce Cost, and Reduce Mmanufacturing cost.

### **Quality Assurance: Quality of Product and Service, Quality Awareness, Quality Management Practices, Develop Quality Management**

Implementation of the ISO management system standards certifications has improved quality awareness, assurance, practices, and system (Demet et al., 2012; Iqbal et al., 2017., Magd and Curry, 2003; Celik and Olcer, 2018; Pratama et al., 2018; Fonseca and Domingues, 2018; Jannah et al., 2020; Khan & Farooque, 2016 and Aamer et al., 2021). The literatur and the focus group reviewed proposition is that; Quality Assurance is positively and significantly related to Quality Awareness,

Quality of Product and Services, Develop Quality Management system, Quality Management Practices.

### **Customers' Satisfaction**

Many commercial companies are becoming ISO management system standards certified to seek the attention and confidence of customers to enhance their profits (Mangiarotti & Riillo, 2014). Customer demand is a huge motivator behind the adoption of ISO management system standards certifications which improve the efficiency of operations, as well as marketing efficiency, increasing productivity, quality awareness, and customer satisfaction (Iqbal et al., 2017; Heis, Purdy & Klassen, 2021; Sweis & Saleh, 2017; Doerga, 2021; Malik & YeZhuang, 2006; Malik et al. 2013; and Celik & Olcer, 2018). The literatur and the focus group reviewed proposition is that; Customer Satisfaction is positively and significantly related to Reduction in Complaints, Delivery on Time.

### **Employees' Satisfaction: Employees' motivation, Satisfaction, Employee skills, Training, Human Resource Management, Job Satisfaction**

It was also found that companies achieved greater customer satisfaction, employee satisfaction, and heightened business performance due to the application of the ISO management system standards certifications (Doerga, 2021; Gallego & Gutiérrez, 2017; Fuchs, Aghajanzadeh & Therkelsen, 2020; Carrillo, Fort, & Parras, 2020; Pratama, Kumari & Nadeem, 2018; Poksinska, Dahlgaard & Eklund, 2003; Demir, 2021; Ahmed, 2017; Fuchs, Aghajanzadeh & Therkelsen, 2020; Aamer, Al-Awlaqi & Mandahaw, 2021; and Silva, Cabecinhas, Domingues & Teixeira, 2020). The literatur and the focus group reviewed proposition is that; Employee Satisfaction is positively and significantly related to the Job satisfaction, Employees' Mmotivation, Employee Training, Employee Skills, Human Resource Management.

### **Market Potential: Market potential, Access to the international market, Compete Internationally, Market Efficiency, Exports Increased, Market Share, Marketing Tool, Goals Achieved**

The ISO management system standards certifications allow companies to adopt a strategy to differentiate their products and improve their image and credibility and facilitate access to international markets and negotiations with major export and distribution channels (Pesce et al., 2018; Odundo, Nyarango & Chanzu, 2015; He et al., 2015; Lyubka, 2019; Spyridon, Dimitrios & Stamatias, 2009; Kakouris & Sfakianaki, 2018; Paunescu, Argatu & Lungu, 2018; Kakouris & Sfakianaki, 2018; Chen et al., 2019; Iqbal et al., 2017; Sweis, Sharaireh & Moarefi, 2019; Khan & Farooqui, 2016; Aamer, Awlaqi & Mandahaw, 2021; Carrillo, Fort & Parras, 2020; Mekic and Dinc, 2017; Chatzoglou, Chatzoudes & Kipraios, 2015; and L.Psomas & P.Kafetzopoulos, 2015). The literatur and the focus group reviewed proposition is that; Market Ppotential is positively and significantly related to the Market Efficiency, Mmarket Share, Growth rate, Goals Achieved, Marketing tools, Access to Iinternational Mmarket, Ccompete Iinternationally, Exports Iincreased.

### **Operational Improvement: Operational Improvement, Operational efficiency, Productivity, Growth of Production, Growth rate, Safety Performance**

The impact of ISO management system standards certifications is greater on quality awareness, increased operations execution, and productivity (Anjum, & Ullah, 2016; Anjum, & Ullah, 2016; Poksinska, Dahlgaard & Eklund, 2003; Jannah et al., 2020; Chen et al., 2019; Fonseca & Domingues, 2018; Saizarbitoria et al., 2021 and (Heras et al., 2011). The literatur and the focus group reviewed proposition is that; Operational Improvement is positively and significantly related to the Operational efficiency, Technical Improvement, Growth of Production, Productivity, Safety Performance.”

**Company Performance: Company performance, Company image, Company Size, Company Reputation, Company Culture**

ISO management system standards certifications enhanced the recognition of the company and improve its image in the eyes of its customers, which builds a high level of trust among consumers (Carlos et al., 2018; John, 2020; LuzMartín, Díaz-Garrido & Sánchez-López, 2014; Djofack & Camacho, 2017; Kakouris, & Sfakianaki, 2018; Celik & Olcer, 2018; Paunescu, Argatu & Lungu, 2018 and Fuchs, Aghajanzadeh & Therkelsen, 2020). The literatur and the focus group reviewed proposition is that; Company Pperformance is positively and significantly related to the Company Reputation, Company Image, Company Size, and Company Cculture Improvement.

**Continuous Improvements: Continuous Improvement, Reduction in Complaints, Waste, Delivery on Time, Reduce Errors, Risks Minimize, Process improvement**

Improvement of the definition and standardization of the work procedures, improvement in the definition of the responsibilities and obligations of the workers' improvement in the definition of the responsibilities and obligations of the workers, increase in the company's quality confidence, better involvement in work, and improvement in guidelines which reduce improvisation are related to ISO management system standards certifications (Shafiq et al. 2017; Saizarbitoria, Casadesus, and Ochoa, 2021; Adem and Viridi, 2021; Ahmed, 2017; Heis & Klassen 2021; Murmura et al., 2018; Doerga 2021; Odundo et al., 2015; Kusumah & Fabianto 2016; Kakouris & Sfakianaki 2018 and Khan & Farooqui, 2016). The literatur and the focus group reviewed proposition is that; Continuous Improvements are positively and significantly related to Process Improvement, Reduce Errors, and Reduction in Waste.

**Top Management Performance: Top Management Performance, Top management Support, Top Management Commitment, Administration Improved**

The successful implementation of ISO management system standards certifications was related to top management commitment and implementation of corrective actions. Encouragement and commitment from management are essential while educating management and employees is equally important as these conditions can move business companies forward to effectively implement it (Dima et al. 2015; Ahmed, 2017; Suyitno, 2018; Jannah et al., 2020; Paunescu et al., 2018; Zimon et al. 2021; Almeida et al., 2018; Heis et al., 2021; Poksinska et al., 2003; Kusumah & Fabianto, 2016; Demir, 2021; Fonseca et al., 2019; Almeida et al., 2018; Said et al., 2021). The literatur and the focus group reviewed proposition is that; Top Management Performance is positively related to the Top Management Commitment, Top Mmanagement Support, and Administration Improved.

**Communication: Documentation and Communication**

ISO management system standards certifications provide systems for communicating with customers about product information, inquiries, contracts, orders, opinions, and complaints. The results suggest that ISO certification has a positive effect on sales, exports, employment, and profits (Javorcik and Sawada, 2018; Almeida et al., 2018; Chatzoglou et al., 2015; Sweis et al., 2019; Poksinska et al., 2003; Fonseca et al., 2019; Aamer et al., 2021; Fonseca et al., 2019 and L.Psomas, & P.Kafetzopoulos, 2015). The literatur and the focus group reviewed proposition is that; Communication is positively related to documentation.

**Stakeholders Relations: Stakeholders Relations, Relationships with suppliers**

The performance gained from ISO management system standards certifications will inspire all

the stakeholders to make continuous improvements and enthusiasm toward world-class manufacturing. The results show that ISO management system standards certifications enhance benefit of the company and its relations with the stakeholders (Poksinska et al., 2003; Heis et al., 2021; John, 2020; Celik & Olcer, 2018; Kusumah & Fabianto, 2016; Chatzoglou et al. 2015; and Poksinska et al., 2003). The literatur and the focus group reviewed proposition is that; Stakeholder relations are positively related to Building Relations with Suppliers.

**Environmental Improvement: Environmental Improvement, Performance, Environmental Sustainability, Environmental Awareness, Reduction of Pollution, Environmental Management**

Environmental improvement may mean conserving materials and energy, reducing pollution, and eliminating accidents, which results in the requirement of liability or better compliance with regulatory requirements. Reduce the intensity of CO<sub>2</sub> emissions and increase firm profits. Thus, in general, quality brings both environmental and economic benefits (Poksinska et al., 2003; Arocena et al., 2020; Santos et al., 2015; Waxin et al. 2019; Potoski and Prakash, 2013; Boiral et al., 2018; Carrillo-Labella et al., 2020; Pratama et al., 2018; Zimon et al., 2021; Ali et al., 2020; LuzMartín-Peña et al., 2014; Pesce et al., 2018; and Santos et al., 2015). The literatur and the focus group reviewed proposition is that; Eenvironmental improvement is positively

related Environmental Awareness, Environmental Performance, Environmental Ssustainability, Environmental Management, and Reduction of Pollution.

**Competition: Competition, Competitive Advantages**

ISO can be a valuable resource for marketing managers to differentiate their companies and compete in a highly competitive environment. ISO standards enhance national and international competitive advantages.

Companies that adopt ISO standards are always one step ahead of their competitors because customers are familiar with certain aspects, they are choosing companies that offer products and services with ISO standards. ISO standards enhance national and international competitive advantage (Spyridon et al., 2009; Celik & Olcer, 2018; Khan et al., 2021; Software, 2018, Djofack & Camacho, 2017). The literatur and the focus group reviewed proposition is that; Competition is positively related to competitive advantages.

**ANALYSIS:** This research study started with an aim to identify the business performance Improvement factors of ISO management system standards certified business companies and synthesize them into a framework. This essence as a holistic framework of ISO management system standards certification is the outcome of a long, tedious and laborious academic Meta review analysis research study. The factors identified are in field of Financial, Managerial, Social and Technical aspects. Based on the Meta literature review and then focus group review, evidence indicates **13 major business performance improvement factors with 60 elements / items** from the ISO management system standards certifications of commercial companies as shown in **Annex B** to this report. The performance improvement factors are arranged based on descending frequency. Also factors and elements are segregated and ordered as per their descending frequency. %age / importance is also shown in this analysis for easy focus on most important to least important.

**CONCLUSION:** This study conclude at the most convincing results of identifying the most relevant ISO management system standards certification improvement factors in the most concise form. These results shall inspire the ISO non-certified business companies to go for its certification, the earlier the better, as it is a win-win scenario for all stakeholders; the business company, customers, employees, stakeholders and government. The benefits are

shared by all in the form of GDP and SDG at national and international level.

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## Annex A A Sample Analysis of a Research paper

<b>Inter-continental review for diffusion rate and internal-external benefits of ISO 9000 QMS</b> <b>Ahmet Demir</b>					
<b>Paper Code</b>	<b>Reference</b>	<b>Year Published</b>	<b>Focus of Research</b>	<b>Description of Improvement</b>	<b>Aspects Improved</b>
<b>RP7F</b>	<b>[7]</b>	<b>2021</b>	<b>The purpose of this paper is to elaborate the internal and external benefits of ISO 9000 certification. The benefits which firms had obtained after ISO 9000 certification in Asia, the Pacific, the Middle East, Europe, North</b>	<b>In order to achieve organizational success Six Sigma, and 5s should be systematically integrated into the ISO 9000 QMS system.</b> <b>In general, most of the organizations are getting ISO certified mainly because they focused on the employees and customer satisfaction operational efficiency, and the reduction of complaints.</b> <b>Once the QMS is implemented properly as instructed by ISO, organizational learning, organizational culture, and</b>	<b>Six Sigma, and 5s</b>
					<b>Employees Satisfaction and customer satisfaction</b>
					<b>operational efficiency</b>
					<b>reduction of complaints</b>
					<b>Top Management</b>
					<b>organizational culture</b>
					<b>organizational excellence</b>

			<p><b>America, Latin America and Africa have been investigated.</b></p>	<p><b>organizational excellence would then emerge.</b></p> <p><b>Encouragement and commitment from top management is essential, while educating management and employees is equally important as these conditions can move organizations forward to effectively implement ISO 9000 QMS.</b></p>	
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## ANNEX B META LITERATURE ANALYSIS AND FOCUS GROUP REVIEWED SYNTHESIZED BUSINESS IMPROVEMENT PERFORMANCE FACTORS AND ITS ELEMENTS / ITEMS FRAMEWORK

Focus Group reviewed synthesized Business Performance Improvement factors Framework with frequency is shown in Table 1 and its Bar chart in Figure 1 and Pie chart in Figure 2.

**Table 1: Focus Group Reviewed Synthesized Business Performance Improvement Factors and Elements / Items Framework**

CODIFICATION OF FACTORS AND ELEMENTS									
S. No	Main Factors	Elements					Total No of Elements	Total Frequency	Total Percentage
1	Financial Performance (FP)	S. No	Elements	Code	Frequencies	Element Percentage%	06	127	17.16%
		1	Financial Performance	FP01	56	44.09			
		2	Sales Increased	FP02	36	28.34			
		3	Business Efficiency	FP03	14	11.02			
		4	Reduce Manufacturing Cost	FP04	14	11.02			
		5	Reduce Cost	FP05	04	3.14			
		6	Risks Minimize	FP06	03	2.3			
2	Quality Assurance (QA)	S. No	Elements	Code	Frequencies	Element Percentage%	04	94	12.70%
		1	Quality of Product and Services	QA01	63	67.02			
		2	Quality Awareness	QA02	24	25.53			
		3	Develop Quality Management System	QA03	04	4.25			
		4	Quality Management Practices	QA04	03	3.19			

3	Customer Satisfaction (CS)	<b>S. No</b>	<b>Elements</b>	<b>Code</b>	<b>Frequencies</b>	<b>Element Percentage%</b>	03	86	11.62%
		1	Customer Satisfaction	CS01	68	79.06			
		2	Reduction in Complaints	CS02	09	10.46			
		3	Delivery on Time	CS03	09	10.46			
4	Employee Satisfaction (ES)	<b>S. No</b>	<b>Elements</b>	<b>Code</b>	<b>Frequencies</b>	<b>Element Percentage%</b>	06	66	8.91%
		1	Employees Satisfaction	ES01	20	30.30			
		2	Employee's motivation	ES02	16	24.24			
		3	Human Resource Management	ES03	12	18.18			
		4	Employee Training	ES04	09	13.63			
		5	Employee skills	ES05	08	12.12			
		6	Job satisfaction	ES06	01	1.51			
5	Market potential (MP)	<b>S. No</b>	<b>Elements</b>	<b>Code</b>	<b>Frequencies</b>	<b>Element Percentage%</b>	09	69	9.32%
		1	Market Share	MP01	21	30.43			
		2	Access to International Market	MP02	16	23.18			
		3	Compete Internationally	MP03	12	17.39			
		4	Marketing Tools	MP04	09	13.04			
		5	Goals Achieved	MP05	04	5.79			
		6	Market Efficiency	MP06	03	4.34			
		7	Exports Increased	MP07	02	2.89			
		8	Growth Rate	MP08	01	1.44			

		9	Market Potential	MP09	01	1.44			
6	Operational Performance (OP)	<b>S. No</b>	<b>Elements</b>	<b>Code</b>	<b>Frequencies</b>	<b>Element Percentage%</b>	06	54	7.29%
		1	Productivity	OP01	28	51.85			
		2	Operational Efficiency	OP02	08	14.81			
		3	Technical Improvement	OP03	07	12.96			
		4	Growth of Production	OP04	07	12.96			
		5	Operational Performance	OP05	03	5.55			
		6	Safety Performance	OP06	01	1.85			
7	Company Performance (CP)	<b>S. No</b>	<b>Elements</b>	<b>Code</b>	<b>Frequencies</b>	<b>Element Percentage%</b>	05	66	8.91%
		1	Company Performance	CP01	30	45.45			
		2	Company Image	CP02	30	45.45			
		3	Company Size	CP03	03	4.54			
		4	Company Culture	CP04	02	3.03			
		5	Company Reputation	CP05	01	1.51			
8	Continuous Improvement (CI)	<b>S. No</b>	<b>Elements</b>	<b>Code</b>	<b>Frequencies</b>	<b>Element Percentage%</b>	04	50	6.75%
		1	Continuous Improvement	CI01	24	48			
		2	Reduction in Waste	CI02	10	20			
		3	Process Improvement	CI03	08	16			
		4	Reduce Errors	CI04	08	16			

9	Top Management Performance (TP)	<b>S. No</b>	<b>Elements</b>	<b>Code</b>	<b>Frequencies</b>	<b>Element Percentage%</b>	04	43	5.81%
		1	Top Management Support	TP01	17	39.53			
		2	Top Management Commitment	TP02	16	37.20			
		3	Top Management Performance	TP03	09	20.93			
		4	Administration Improved	TP04	01	2.32			
10	Communication (CM)	<b>S. No</b>	<b>Elements</b>	<b>Code</b>	<b>Frequencies</b>	<b>Element Percentage%</b>	03	32	4.32%
		1	Documentation	CM01	22	68.75			
		2	Internal Communication	CM02	05	15.62			
		3	External Communication	CM03	05	15.62			
11	Stakeholders Relations (SR)	<b>S. No</b>	<b>Elements</b>	<b>Code</b>	<b>Frequencies</b>	<b>Element Percentage%</b>	02	28	3.78%
		1	Stakeholders Relations	SR01	26	92.85			
		2	Build Relations with Suppliers	SR02	02	7.14			
12	Environmental Improvement (EI)	<b>S. No</b>	<b>Elements</b>	<b>Code</b>	<b>Frequencies</b>	<b>Element Percentage%</b>	06	16	2.16%
		1	Environmental Performance	EI01	05	31.25			
		2	Environmental Awareness	EI02	03	18.75			
		3	Environmental Sustainability	EI03	03	18.75			
		4	Environmental Improvement	EI04	02	12.5			
		5	Reduction of Pollution	EI05	02	12.5			
		6	Environmental Management	EI06	01	6.25			



13	Competition (CN)	S. No	Elements	Code	Frequencies	Element Percentage%	02	09	1.21%	
		1	Competition	CN01	07	77.77				
		2	Competitive Advantages	CN02	02	22.22				
<b>Total Factors = 13</b>		<b>Total Elements = 60</b>						<b>740</b>		

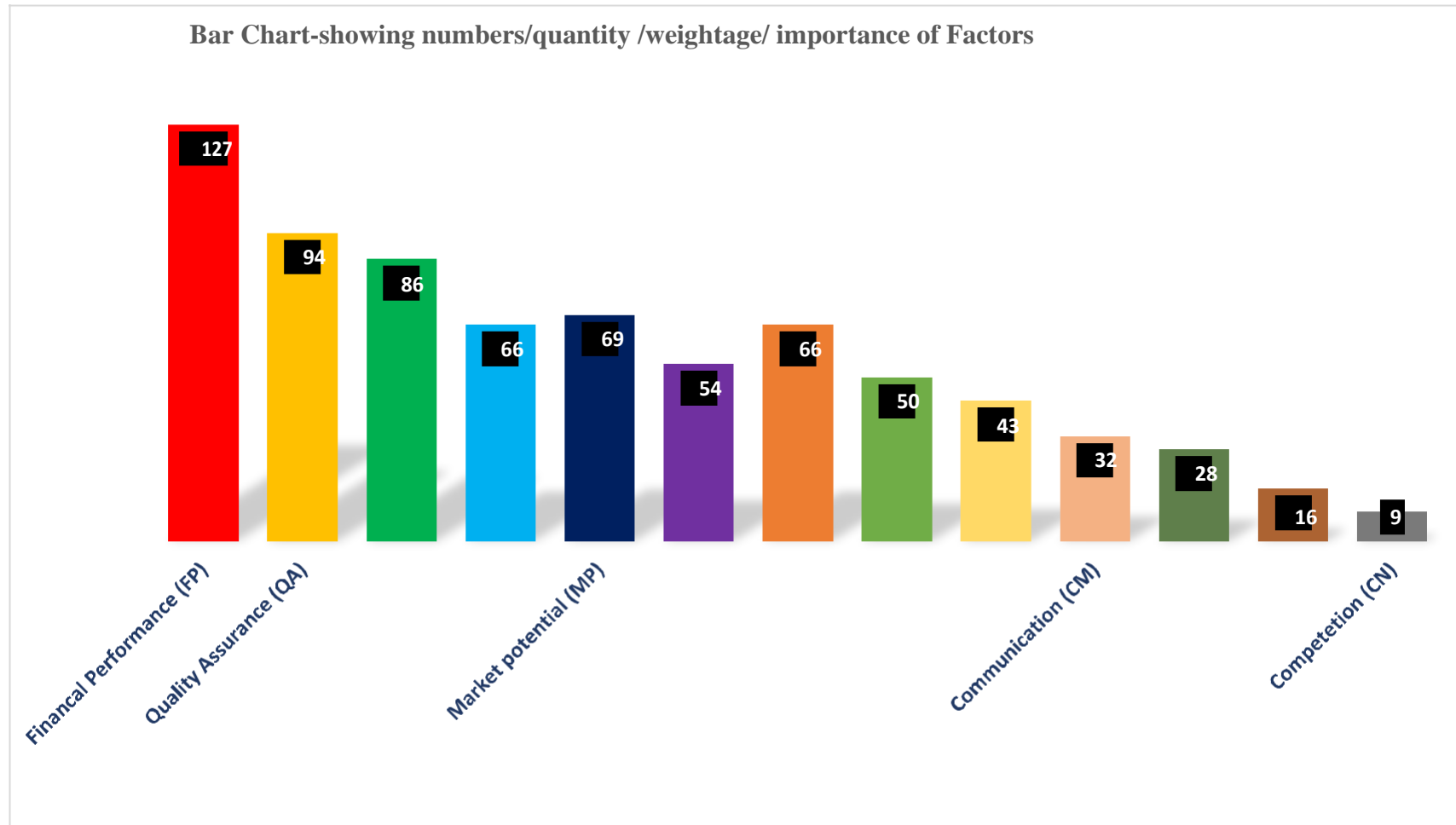
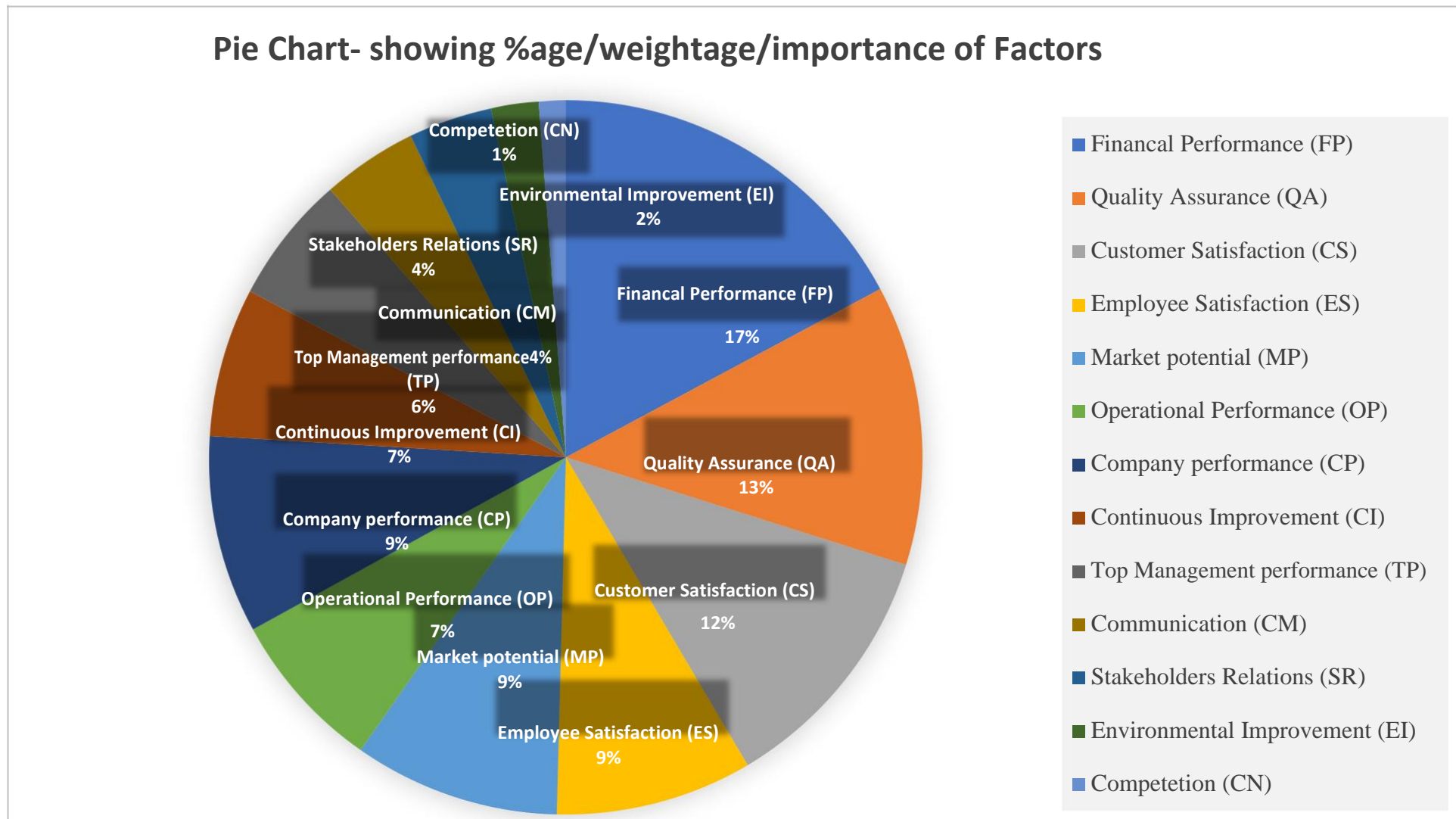


Figure 1: Reviewed Synthesis Business Performance Improvement Factors Framework – Bar Chart



**Figure 2: Reviewed Synthesis Business Performance Improvement Factors Framework – Pie Chart**