



## **ASSOCIATION OF EMPLOYEE PARTICIPATION WITH SALES TURNOVER AND YEARS OF ISO 9000 CERTIFICATION FOR SMALL AND MEDIUM SCALE COMPANIES**

*Prof. Shahshikant Kari*

### **Abstract:**

*Companies practiced various operations strategies to satisfy different market segments. One of these strategies is quality management. The strategy is evolved from a top-down and bottom-up approach to organization. The bottom-up approach is nothing but employee involvement in the implementation of the strategy. This research paper aims to study employee participation for implementation of the ISO 9000 quality system and its association with sales turnover and years of certification. The study has been conducted with 400 small and medium-scale companies covering various industrial districts of Maharashtra. The empirical results indicated that there was an association of employee participation with years of certification and sales turnover. The findings of this study will be a guideline for certified companies as to which employee involvement parameters to put more focus on. Similarly, this employee participation will help non-certified companies to go for certification.*

**Keywords:** *ISO 9000, Employee participation, Sales Turnover, Years of Certification, Quality*

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### **Introduction**

The choices made at the top of the organization must be reflected in an operational strategy, which sets the general direction of the organization. This approach to operations planning is known as a "top-down" approach. Individual roles inside the company are consulted by businesses. The ideas that originate from each function's daily experience are incorporated into the overall design. As a result, strategic concepts arise throughout time as a result of real-world experiences. Companies can choose a strategic direction because their continuing operational experience offering goods and services to clients convinces them that it is the appropriate thing to do. There may not be any high-level judgments considering various strategic possibilities and selecting the best path ahead. Instead, a broad agreement develops, generally from the organization's operational level. The operational level of an organization is nothing but employee participation in implementing any process or strategies. Consensus may be confirmed and resources may be provided through 'high-level' strategic decision making, assuming it happens at all. The concept of emergent strategies describes the notion that a strategy develops through the time when it is faced with new challenges.

### **Literature Review**

The spirit or life theory of the ISO 9000 quality system, which is commonly considered as a quality certification program, is the psychological attitude and emotional participation of workers and their dedication to the organization's quality objectives and concerns.



The system becomes dysfunctional without the participation and cooperation of workers (Bannister, 1995; Huarng et al., 1999). An organization's customers, its products, and its quality system will not profit from extensive documentation of a quality system unless personnel is committed to quality thinking (Bannister, 1995; Huarng et al., 1999). According to DeToro and Tenner (1992), Beardsley and Hunt (1993), Cartin (1993), and Ingles (1994), employee engagement and other human aspects are critical to a successful application of the ISO 9000 standard. Cartin (1993) emphasized that the comprehensive collaboration of all organizational partners integrates and aligns with the ISO 9000 System initiatives. It has been argued that everyone in the organization is willingly cooperating and continuing to participate in the success of the 9000 certification process and the ISO 9000 implementation process (Hunt and Beardsley 1993).

Most of the study findings cited above emphasize the importance of employee engagement and dedication to the successful adoption of the ISO 9000 system. The inclusion of people at all levels and phases of the ISO process resulted in increased aim orientation, communication openness, and voluntary modifications in structure, according to Srivastava (1992), Kumar (1993), and Ashton and Jackson (1995). There is multi-disciplinary teamwork throughout the organization and the organization.

According to Srivastava (1992), ISO 9000 procedures extend to all organizational activities, such as manufacturing and non-manufacturing sectors, as well as observable improvements in areas like human resource development, labor force participation, communication openness, and goal-orientation. Taylor (1995) analyzed data from the survey of 682 companies and found that senior executives' behavior and attitudes improved significantly as a result of their firm's commitment to ISO 9000 adoption.

Employee participation, horizontal and lower-level communication, and enhanced employee motivation and commitment are all attributed to ISO 9000's implementation, according to Kumar (1993). Gupta (1994) stated that the implementation of ISO 9000 provides the company with several obvious and non-physical benefits such as accountability and accountability as a result of improved job satisfaction.

Quality circles developed within the organization have an exceptional role to play in such inspiring work. Establishing quality circles on the shop floor gave employees a whole new experience and instant sharing and inspiration in their minds. In the organizational environment, all of this has led to an increase in the score of the extension goal that is prevalent in the mindset of the company members.

The ISO 9001 quality management system relies heavily on employee training. All employees in the firm are taught the idea and methods of implementing quality systems, as well as their core roles including design, marketing, product engineering, procurement, and process, during the implementation of the ISO 9000 system.

### **Research Gap**

Literature review shows that employee participation is the key to ISO implementation. Researchers have studied various parameters of employee participation in bits and pieces. It is observed that very little research was done on the association of employee participation elements concerning their years of certification and sales turnover after getting ISO 9000 certification.

### **Objective of Study**

1. To identify the various elements of employee participation.



2. To study the association of these various employee participation elements with respect to their years of certification and sales turnover after getting ISO 9000 certification.

### **Research methodology**

#### **Measure**

In this research after a study of literature and in-depth discussion with the help of ISO consultants, owners, managers, and people involved in ISO 9000 implementation in small and medium scale companies ten elements of employee participation were selected. The questionnaire was designed on these elements. Responses on these elements were taken on a five-point liker scale like 1- strongly disagree, 2- disagree, 3-Neutral, 4-agree, 5- strongly agree. Years of certification were grouped into four groups' i.e.0-5, 5-10, 10-15, and 15-20 years. Sales Turnover (Rs. crore) was grouped into 0-50, 50-100,100-150,150-200,200-300,300-500,500 and above.

#### **Pilot Study**

A pilot study was conducted with ten respondents which consisted of small and medium companies' quality Managers, Owners, production managers in the city of Mumbai and Thane for having designed the questionnaire on employee participation. Face-to-face interviews were conducted with the participants in the pilot project. Based on their comments, a slight change was made to the phrasing of the questionnaire in the final edition to enhance clarity.

#### **Sample Size and data collection**

The questionnaire was sent to small and medium scale companies located in prominent Industrial districts of Marathwada, North Maharashtra, Western Maharashtra, and Kokan region through various ISO consultants, know contacts, and on e-mail. It was addressed to Company executives, owners, managers, people involved in ISO implementation, management representatives, and practitioners from the industry. As far as possible responses were taken in person. Data was gathered from small and medium scale companies based on convenient sampling. The sample size was 400. Following the data collection, responses were coded in the statistical tool SPSS version 16 for computer processing.

#### **Validity and Reliability tests**

The degree to which items in a collection of measuring items are homogeneous is referred to as the group's internal consistency. The Cronbach's alpha reliability coefficient was used to calculate the internal consistency in this investigation. Cronbach's alpha for the aspects of employee engagement was 0.835 (greater than 0.6), indicating acceptable reliability (Malhotra, 2004).

#### **Hypotheses**

##### **Hypothesis A**

$H_0$  =There is no significant association between various elements of employee participation and years of certification.

$H_1$  = There is a significant association between various elements of employee participation and years of certification.

##### **Hypothesis B**

$H_0$  =There is no significant association between various elements of employee participation and sales turnover.



$H_1$  = There is a significant association between various elements of employee participation and sales turnover.

**Data Analysis**

To find the association between various elements of employee participation with years of certification and sales turnover chi-square test ( $\chi^2$ ) with a 95% confidence level was conducted. Results are as follows.

**Findings**

The Demographic Profile of the Sample is presented in Table 1.

**Table 1: Sample Demographics Profile**

Demographic Factors	Category	Frequency	%
Operations Scale	Small	227	56.8
	Medium	173	43.2
Years of Certification	0-5	102	25.5
	5-10	158	39.5
	10-15	90	22.5
	15-20	50	12.5
Sales Turnover in Rs (Crores)	0-50	235	58.8
	50-100	69	17.2
	100-150	33	8.2
	150-200	5	1.2
	200-300	26	6.5
	300-500	11	2.8
	500 and above	21	5.2

**Employee Participation**

**Table 2:  $\chi^2$  Values of elements of employee participation**

Elements of Employee Participation	Years of certification	Sales Turnover
Inclusion of employee motivating incentives	0.001	0.019
The atmosphere that encourages all workers to participate in quality improvement	0.040	0.049
Mechanisms associated with the organization's business strategies to encourage employee participation in teaming initiatives (such as cross-functional, QCS teams)	0.009	0.001
Criteria used for assessing the efficacy of "Human Resource Development"	0.473	0.292
Employees at the factory provide suggestions for quality enhancement;	0.797	0.303
Human safety and ergonomics are designed into working procedures	0.133	0.000



Production employees' involvement in quality circle teams and Project teams, problem-solving groups, too	0.158	0.001
Operators are responsible for finding the correct component the first time and for first-level machine maintenance	0.001	0.024
To achieve quality, implementation of suggestion schemes and a small group activities method is used	0.004	0.133
For optimal communication between departments, a computerized information flow system is used	0.018	0.000

Table 2 shows  $\chi^2$  test values for an association of various elements of employee participation with years of certification and sales turnover. Test values  $< 0.05$  shows significant association and test values  $> .05$  says no significant association at 95% confidence level.

**Hypothesis A: Employee Participation and Years of certification**

$H_0$  = There is no significant association between various elements of employee participation and years of certification.

$H_1$  = There is a significant association between various elements of employee participation and years of certification.

It was observed that association exists between various elements of employee participation like Inclusion of employee motivating incentives, Atmosphere that encourages all workers to participate in quality improvement, Mechanisms associated with the organization's business strategies to encourage employee participation in teaming initiatives (such as, cross-functional, QCS teams), Operators are responsible for finding the correct component the first time and for first-level machine maintenance, To achieve quality, implementation of suggestion schemes and a small group activities method is used, For optimal communication between departments, a computerized information flow system is used with years of certification as  $\chi^2 < 0.05$ (Refer table 2). Hypothesis  $H_0$  was rejected and  $H_1$  was accepted.

It was also observed that no association exists between various elements of employee participation like Criteria used for assessing the efficacy of "Human Resource Development", Employees at the factory provide suggestions for quality enhancement, Production employees' involvement in quality circle teams and Project teams, problem-solving groups, too with years of certification as  $\chi^2 > 0.05$ (Refer table 2). Hypothesis  $H_1$  was rejected and  $H_0$  was accepted.

**Hypothesis B: Employee participation and Sales Turnover**

$H_0$  = There is no considerable correlation between various elements of employee participation and Sales Turnover

$H_1$  = There is a considerable correlation between various elements of employee participation and Sales Turnover.

Association was observed in case of Inclusion of employee motivating incentives, Atmosphere that encourages all workers to participate in quality improvement, Mechanisms associated with the organization's business strategies to encourage employee participation in teaming initiatives (such as, cross-functional, QCS teams), Human safety, and ergonomics are designed into working procedures, Production employees' involvement in quality circle teams and Project teams, problem-solving groups, Operators are responsible for finding the correct



component the first time and for first-level machine maintenance, For optimal communication between departments, a computerized information flow system is used with sales turnover as  $\chi^2 < 0.05$ (Refer table 2). Hypothesis  $H_0$  was rejected and  $H_1$  was accepted.

No association was observed in case of other elements of employee participation like Criteria used for assessing the efficacy of "Human Resource Development", Employees at the factory provide suggestions for quality enhancement, to achieve quality, implementation of suggestion schemes, and small group activities method are used with sales turnover as all  $\chi^2 > 0.05$ (Refer table 2). Hypothesis  $H_0$  was accepted and  $H_1$  was rejected.

### **Discussion**

The atmosphere that encourages all workers to participate in quality improvement, Inclusion of employee motivating incentives, employee involvement in teaming activities, designing the appropriate component in the first attempt, suggestions schemes, computerized information flow, all these activities require ground-level employee involvement. ISO 9000 quality system helps to establish the proper procedures for all these activities. It requires time for practicing it after certification. Hence there is an association of these activities with years of certification.

Human Resource Development, quality improvement ideas, working procedures design for human safety and ergonomics in manufacturing plant, project teams, and problem-solving groups, quality circle teams, all these activities are part of any business operations. These activities are independent of certification. Hence there is no association of these activities with years of certification.

Motivational rewards like sales incentives help in increasing sales. Involvement of after-sales service employees with product design team and marketing team on customer feedback helps to improve quality of product, which attracts the customers for buying the product. Human safety and ergonomics are considered in the design of working procedures for the product, Quality circle teams, making the components right the first time, all these parameters help to improve productivity, production, and availability of inventory for sales. Hence there is an association of these parameters with sales turnover. Similarly, computerization information flow between sales and manufacturing plant reduces the lead time of product availability which improves the sales. Hence all these employee participation parameters have an association with sales turnover.

Human resource development, Quality improvement ideas by plant employees, suggestion scheme, all these parameters are part of any operations and business. It does not depend upon any quality system company practicing. Hence there is no association of these parameters with sales turnover.

### **Conclusion**

The researcher's findings suggest that certified companies have various elements of employee participation which supports in implementing the ISO 9000 quality system. Elements that have an association with years of certification are Inclusion of employee motivating incentives, Atmosphere that encourages all workers to participate in quality improvement, Mechanisms associated with the organization's business strategies to encourage employee participation in teaming initiatives (such as, cross-functional, QCS teams), Operators are responsible for finding the correct component the first time and for first-level machine maintenance, To achieve quality, implementation of suggestion schemes and a small group activities method is used, For optimal



communication, a computerized information flow system is used. Elements of employee participation which has an association with sales turnover are the Inclusion of employee motivating incentives, an Atmosphere that encourages all workers to participate in quality improvement, Mechanisms associated with the organization's business strategies to encourage employee participation in teaming initiatives (such as, cross-functional, QCS teams), Human safety and ergonomics are designed into working procedures, Production employees' involvement in quality circle teams and Project teams, problem-solving groups, Operators are responsible for finding the correct component the first time and for first-level machine maintenance, for optimal communication between departments, a computerized information flow system is used.

### Implication

Employee participation is the most important factor in implementing the ISO9000 system. Elements of employee participation that have an association with years of certification and sales turnover will guide the firms to put more focus on it. Similarly, these associated factors of employee participation will be guidelines for non-ISO-certified companies to get a certification.

### Limitations

Since the study was done in a few regions of Maharashtra state of India which included small sample size and therefore results cannot be generalized for other parts of India. A survey was conducted through a questionnaire and thus was subject to respondent bias. The findings discussed above could not be compared with previous literature findings as such research was not done previously.

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ERJ

**Educreator Research Journal**



VOLUME-IX, ISSUE- III

MAY – JUNE 2022

*Original Research Article*

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***Cite This Article:***

***Prof.Shahshikant Kari, (2022). Association Of Employee Participation With Sales Turnover And Years Of Iso 9000 Certification For Small And Medium Scale Companies, Educreator Research Journal, Volume– IX, Issue– III, May – June 2022, 1-8.***