

## **A Study on Preventive Control System with Reference to Toyota Motors**

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### **Abstract**

Most controls are designed to check whether performance conforms to the plans prepared by the management for achieving organizational objectives. Specific areas in which controls may be employed include selection, training, wages and salaries, quality of products or services, inventory, capital expenditure, cash reserves, and the like. Many controls, which are based on feedback, measure and rectify deviations from plans. This is direct control. Another control is preventive control, which emphasizes control through speculation of deviations rather than use of control after deviations have occurred. This paper covers the preventive control system followed at Toyota.

### **Introduction**

The control function is gaining importance in today's organizations due to a number of factors. These factors include the need for accountability in organizations, the need to detect environmental changes that significantly affect organizations, the growing complexity of present day organizations and the need to identify operational errors in organizations to avoid incurring excessive costs. In addition to addressing the above factors, controlling plays an important role in helping managers detect irregularities, identify opportunities, handle complex situations, decentralize authority, minimize costs, and cope the uncertainty.

Control is an essential function of management in every organization. The management process is incomplete and sometimes useless without the control function. The control function is concerned with ensuring that the planning, organizing, staffing and leading functions result in the attainment of organizational objectives. Thus, control ensures that what is done and what is intended. Control must be exercised by everyone in the organization, from the top level to the bottom level. There is a misconception that it is the duty of only the top level of an organization to exercise control. Control is also perceived as tight supervision by others. Such misconceptions must be removed, if the control function is to contribute to the betterment of the organization.

### **Objectives**

1. To study the basis of control, the types of control and principles of preventive control.
2. To observe the preventive control system followed at Toyota Motors.

### **Direct control versus preventive control**

In direct control, the cause of an unsatisfactory outcome is traced back to the individuals responsible for it and they are made to correct their practices. Preventive control, however, focuses on developing better managers who will skilfully apply concepts, principles and techniques and view managing and managerial problems from a system point of view, so that the undesirable outcomes caused by poor management are eliminated.

The principle of preventive control is based on the idea that most of the negative deviations from standards can be overcome by applying the fundamentals of management. The principle of preventive control makes a sharp distinction between analyzing performance reports and determining whether managers adopted the established principles in actual practice.

### **Preventive Control at Toyota Motors**

Toyota Motor Corporation, the world's third largest automaker, offers a wide range of models, from mini-vehicles to large trucks. The company has set a benchmark by ensuring world-class quality in the production process. Right from the developmental stage to the manufacturing stage, the company ensures that its product is of superior quality. The company's philosophy regarding quality control is adopted by the teams involved in the production process. In order to obtain their active involvement, the team members at Toyota are encouraged to contribute their ideas for improving the production process. In their efforts to improve design quality, vehicle designers at Toyota use computer aided design to create and modify their specifications. Technology enables these designers to have a clear picture of their ideas on a computer screen.

At Toyota, the principle of 'Kaizen,' which emphasizes continuous improvement is followed. In Toyota's production process, every member in the production line is regarded as a customer and efforts are made to see that no defective part is passed on to the next stage. If any defect is found, then production is stopped and the team member rectifies the mistake and then passes it to the next stage. In this way, preventive control is ensured. Toyota's quality control at every stage of the production process ensures that correct materials and parts are used and fitted with precision and accuracy and that the production process progresses smoothly. In addition to this system of control, team members perform a number of inspections during the production process.

If a defect is found, production is stopped by using an 'andon cord.' An 'andon cord' is a rope strung along the assembly line. When a problem arises, the concerned team member can pull the rope to halt production. The production process is resumed only when the problem has been solved. At Toyota, a quality audit is used to test the exhaust system, maintain mass production quality control levels, identify improvements for quality, and provide detailed evaluations in the process of production.

After a vehicle has been manufactured, it is put through a series of functional inspection tests. These tests include testing the performance of the vehicle, testing the brakes and spraying the vehicle from all sides with water at high pressure to check whether and compartment of the vehicle is leaking. As part of the final inspection, the team members examine every inch of the vehicle to check if any defects are present. In order to ensure continuous improvement, Toyota makes use of Quality Circles and suggestion systems that reward team members for their ideas.

### **Conclusion**

Controls are necessary to check whether the performance conforms to the plans prepared by the organization. The principle of preventive control is based on the idea that most of the negative deviations from standards can be overcome by applying the fundamentals of management. The application of preventive control system at Toyota Motors as discussed in the paper.

**Reference**

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