

Subject: Public Administration
Course: Public Administration: An Introduction
Title of the Module: Span of Control

INTRODUCTION:

This module provides an insight into the span of control through its concept, types, factors affecting, advantages, limitations and V.A Graicunas's formula.

Span of control is the term commonly used in business management and public administration. It is not a principle in itself but provides an empirical generalization based on common sense. Organizational theorists had tried to develop it as a guiding principle but it serves only as a frame of reference. It is a controversial concept and perhaps the most discussed single concept in classical, neo-classical or modern administrative theories.

KEY WORDS: Delaying, Graicunas's Formula, Narrow Span of Control, Span of Attention, Coordination, Level of Management, Supervision, Delegation, Wide Span of Control..

TEXT:

Span of Control: Concept and Concerns:

Span of control plays a significant role in organizations and has its implications for organizational structure i.e. interactions between supervisors and subordinates and decision making process.



Sub-ordinates that can be personally directed by a supervisor or an administrator is termed as span of control. The term can be defined as:-

1. **Dimock:-** “Span of control is the number and range of direct, habitual communication contacts between the chief executive of an enterprise and his principle fellow officers.”
2. **Lois Allen:-** “Span of control refers to the number of people that a manager can supervise.”
3. **Peterson and Plowman:-** “Span of control refers to the maximum number of sub-ordinates which may be placed under the jurisdiction of one executive immediately superior to them.”
4. **Elliott Jaques** has the view-point that a manager may have up to as many immediate sub-ordinates that he can know personally in the sense that he can assess personal effectiveness.
5. **Haimann and Scott** defined span of control as the number of subordinates who can be effectively supervised and managed.
6. **Longenecker** simply defined span of control as the number of immediate subordinates reporting to a given manager.

Span of control is the range or extent of effective control and supervision of the work done by the sub-ordinates. A general definition of span of control can be as the extent to which one person can extend his or her supervisory powers over other individuals or administrative units in an effective manner is termed as span of control. Span of control is needed due to limited attention power, limited time and limited energy.

Span of control affects the efficient utilization of managers and the effective performance of their subordinates.

Ideal span means the number of subordinates which should cost less and provide more strength to the management.

Types of span of control:

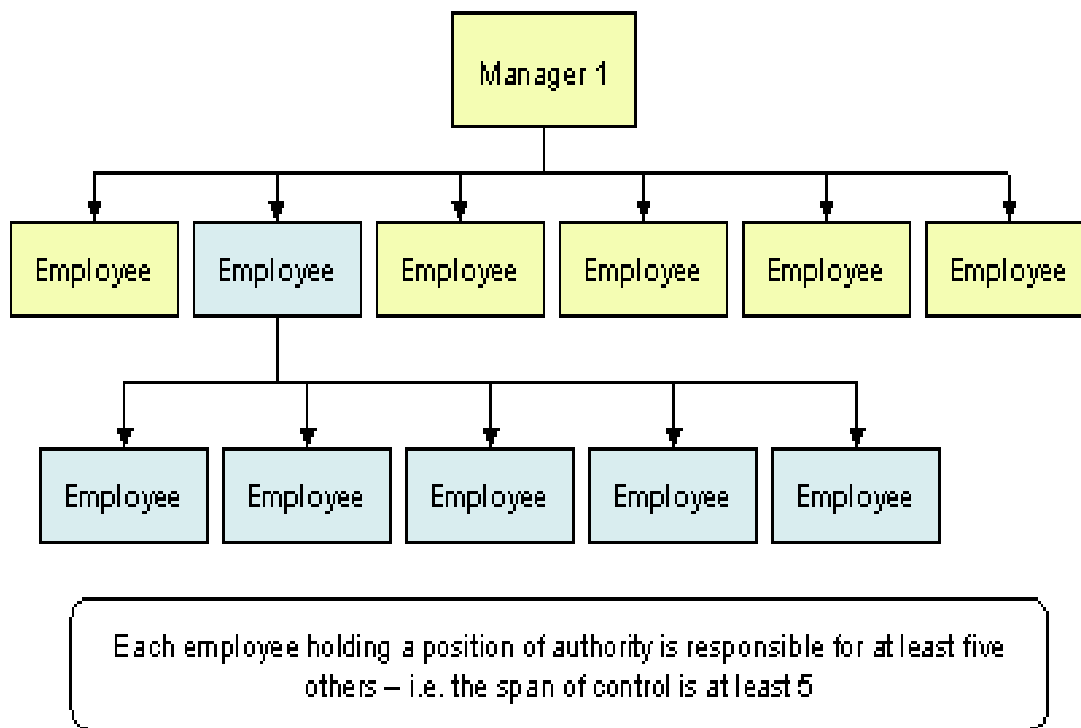
The span of control can be of two type's i.e. wide span of control and narrow span of control.

1. Wide span of control: Wide span of control means a manager can supervise and control effectively a large number of persons at a time. It is because shorter span of control leads to rise in number of steps or levels in vertical chain of command which leads to tall organization. Wide

span of control has features as it leads to maximized communication; better supervision; better co-ordination; suitable for routine and easy jobs; prompt response from employees; less overhead cost of supervision and greater ability to respond to environmental changes.

A wide span of control results in an organization that has relatively few levels or steps of management which can be termed as flat or horizontal organization. Wide span of control is suitable when people are competent, prefer low supervision and tasks are similar and standardized. Simon pleads for wider span of control. It is because shorter span of control leads to rise in number of steps or levels in vertical chain of command which leads to tall organization. This makes vertical communication difficult and indirect. Wider span of control leads to maximized communication.

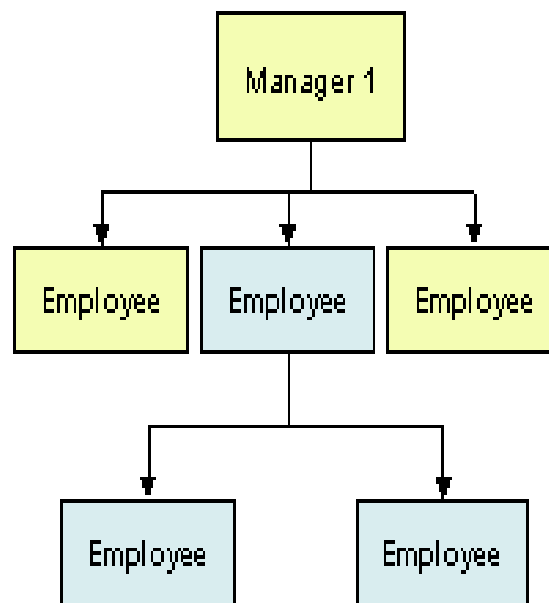
Example of a Wide Span of Control



To make the span of control wider **Delaying Process** is used. In this process, the span of control is increased which results in reduction of the number of managers and layers in the organization. Delaying helps in improving communication from the top and saving cost.

2. Narrow span of control: When the work and authority is divided amongst many subordinates and a manager supervises and controls a small group of people, then narrow span of control exists. It adds more layers or levels of management and so leads to tall organization. Main features of narrow span of control are as specialization work can be achieved; work which is complex and requires tight control and supervision, there narrow span of control is helpful; messages can be distorted; co-ordination is difficult to achieve; communication gaps can come; more overhead cost of supervision and no quick response to environmental changes.

Example of a Narrow Span of Control



Each employee holding a position of authority is responsible for at least two others – i.e. the span of control is at least 2

When the span of control is narrow then the structure of the organization is tall and there may be ineffective, inaccurate and incomplete communication which could lead to decreased morale, increased executive payroll and red-tapism.

Factors affecting span of control:

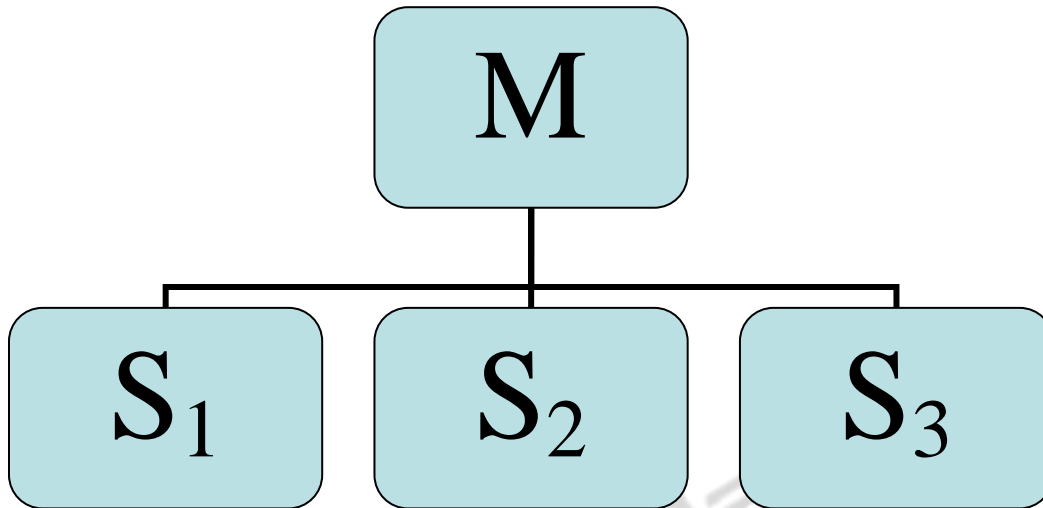
1. **Ability of subordinates:** when the subordinates are enough competent to complete the allotted work easily, the manager will not be required to give more attention to them and more subordinates can be supervised. But, when if subordinates are less competent, the manager will be required to devote more time for supervision and span of control will be narrow.
2. **Degree of delegation:** A manager who delegates more authority of taking decisions to his subordinates can supervise a greater number of subordinates and enlarge the span of control. But, if a manager keeps more authority of taking decisions with him can supervise a small number of subordinates.
3. **Capability of the supervisor:** The qualities and qualifications of the supervisor affect the span of control to a great extent. If the supervisor is competent enough, he can easily supervise a large number of employees and span of control can be wider. In case when supervisor is new, less competent and has less administrative ability, the span of control will be narrow.
4. **Age of the organization:** The span of control is wider in old organizations than in newer organizations because in old organizations things get stabilized.
5. **Nature of work:** As the work is more routine, the span of control can be wide. The similarity and simplicity of functions can be tackled easily while if work is of complex nature, the supervisor's span of control will be narrow. So, nature of work determines the span of control.
6. **Geographical Dispersion:** If branches of a business are widely dispersed, then the manager will find it difficult to supervise each of them, as such the span on control will be smaller. A manager can supervise easily the work of a large number of subordinates, if they are located in one compact place.
7. **Techniques of supervision:** Supervision Techniques such as delegation, planning, programming, the use of staff specialists, etc., help extend a manager's span of control. Span of control can be extended where the direction of operations is done more by goals and objectives rather than by ever-present supervisor. Also, an administrator can broaden his span of control by the use of staff specialists who can provide another set of legs, eyes and ears for the executive.

8. Communication system: A well organized and sensitive proper communication system in an organization will make possible a larger span of control than a power and ill-organized system of communication.
9. Use of standing plans:- It reduces the work load of managers, as a result span of control increases considerably.
10. Use of communication technology: In modern times, because of the use of automation in administration, of control has widened. Further, the application of mechanization to such activities as accounting and computation work had increased the span of control.
11. Level of management: The higher the superior is in the organizational hierarchy, the narrower the span of control. Based on empirical studies, Newman suggested that executives in higher echelons should have a span of three to seven operating subordinates, whereas the optimum range for first-line supervisors of routine activities is usually from fifteen to twenty employees.

There are other factors such as well-defined authority and responsibility; availability of staff services; economic restrictions; superior-subordinates relationship; degree of centralization; financial position of the organization; clarity of plans and responsibilities etc which also affect the span of control.

Formula of V.A Graicunas:-

In 1933, a French Management consultant described the concept of 'Span of Attention' which is related to the principle of span of control in public administration. His concept is based upon the hypothesis that there is a limit to the number of things one can attend to at the same time. He analyzed the possible number of relationships that can happen for a given span of control. According to Graicunas, "As the number of subordinates increases arithmetically, the number of relationships increases almost geometrically." Three types of superior-subordinates relationships were identified by Graicunas.



1. Direct single relationships: The first and other type of relationship is direct relationship between superior and his subordinates e.g if M is superior while S₁ and S₂ are his subordinates, then direct single relationships will be two i.e (a) M with S₁ and (b) M with S₂.

2. Direct group relationships: Direct group relationships arise between the superior and his work groups in all possible combinations. e.g in a figure (a) M with S₁, S₂ in attendance, (b) M with S₂, S₃ in attendance.

3. Cross Relationships: Cross relationships arise among the subordinates under a common superior e.g (a) S₁ with S₂ and (b) S₂ with S₁. when a third subordinate S₃ reports to M, one additional direct relationship will be established between x and p. group relationships will be increased to seven as S₃S₂, S₂S₃, S₁S₂, S₂S₁, S₃S₁S₂, S₂S₁S₃ and S₁S₃S₂.

Along with these, will be four more cross-relationships:- S₁S₃, S₂S₃, S₃S₁, S₃S₂. So, there will be a total number of 18 interactions. A fourth subordinate will raise the total number of interaction to 44.

The general mathematical formula of Graicunas is as:-

$$R = N[2^N/2+N-1] \text{ Or } R = N[2^{N-1} + N-1].$$

Where **R**- Total no. of relationships.

N- no. of subordinates reporting directly to the superior.

e.g if no. of subordinates is 3, 4, 5 and 6 then relationships will be as:-

$$R_3 = 3[2^3/2+3-1] = 18.$$

$$R_4 = 4[2^4/2+4-1] = 44.$$

$$R_5 = 5[2^5/2 + 5 - 1] = 100.$$

$$R_6 = 6[2^6/2 + 6 - 1] = 222.$$

No. of subordinates	1	2	3	4	5	6	7	8	9	10
No. of relationships	1	6	18	44	100	222	490	1080	2376	5210

According to Graicunas, a manager can effectively supervise 6 subordinates or 222 relationships. The number of subordinates at higher level should be 5 or 6, while at the lower level a number of 20 subordinates is an ideal number.

Advantages of Span of control:

Advantages of adequate span of control can be pointed out as it increases efficiency; facilitates effective supervision and control; increases goodwill; develops professional morale and team spirit; better communication and co-ordination; facilitates quick action; less labour absenteeism and turnover; develops discipline and mutual trust and superiors can concentrate on important work.

