

공공업무시설의 계획 현황과 개선방향 연구

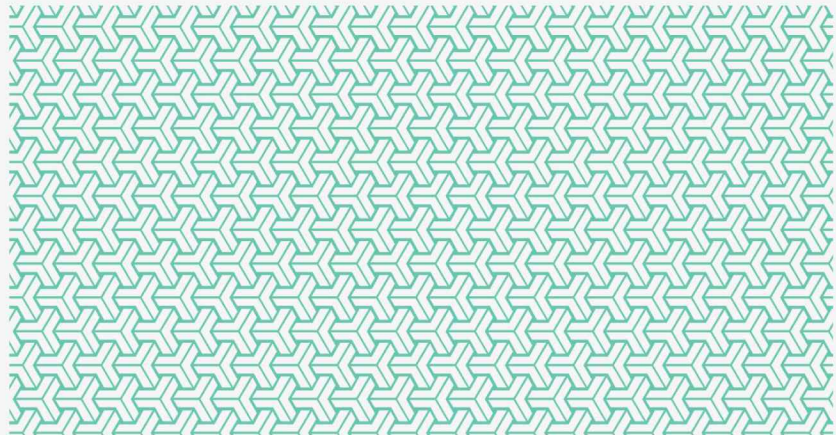
Planning Issues and Suggestions for Improvement of Public Office Building

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Summary



Workspace planning is affected by the nature of an organization, type of works, and the characteristics of tasks. It substantially influences the behavior of users working in the space as well. It is not clear whether standardized workspaces result from inappropriate design or space programming issues. However, they need to be closely inspected, as they hardly embrace the characteristics of work, provide user convenience, or offer efficient work environment. The goal of this research is to suggest an effective method for planning public office buildings. Research topics were derived from previous studies as follows. First, how must a workspace be planned in order to reflect the characteristics of work? Second, is the space programming standard currently applied in workspace planning appropriate? This research strives to suggest improved ways for planning public office buildings through diagnosing the current planning practices and executing tests and simulations to find proper space planning methods.

Limitations in the supply and demand system were firstly raised as a result of diagnosing the planning practices and use cases of public office buildings. The current supply and demand system does not provide proper procedures or tools to afford changes in conditions or user requirements taking place and coming from individual departments, either during planning process or after the facility has been established. The next issue is whether the current space programming protocols applied in workspace planning is appropriate or not. The source or related standards of those rules used in calculating workspace areas per person are unclear, and we have been using the standard modified in early 1990s to secure space for installing personal computers and OA equipment. We need to examine how the area standards currently used has been specifically drawn out and applied in relation to other spaces, on a division or a department basis, from which the ambiguity of interpreting those rules when applying them must be addressed. Lastly, current practices hardly take into account the work characteristics and the behavior of users. The analysis result of the current planning and status of use of workspace in each department tells us that the spaces were configured and used in a standardized way, although the types of work have been differentiated.

Simulations were done in an effort to find effective space planning methods that can reflect work characteristics. This aimed at finding feasible workspace units and area standards per person, position, and section respectively. The use status

of department spaces, each with high demand for personal tasks, meetings, public services, and storage, was studied, and the characteristics of such tasks were identified through user interviews. Based on this, a redistribution strategy of space was suggested and an improvement plan was drafted. Simulations were done to find an optimal methodology that can improve the currently applied workspace units within a department, from which standard areas per person were reversely estimated from unit modules drawn out from the suggested redistribution plan. The standard areas had to be estimated only after the space planning had been established taking into account work characteristics, because of the complex issues relating to the area standards currently in use and the actual use of workspace. As for the area standards, reasonable areas per task type need to be determined first, and a flexible operation of them will be needed when applying the new standards. The issue of the use of workspace requires approaches by the experts based on user convenience and work performance.

The improvement plan suggested here for the planning of public office building includes the improved area standards for workspace, user-centered space planning strategies, and the introduction of a regulatory system that encourages the improved quality of workspace. In the short-term, it is suggested to secure extra space in response to the demands for common spaces and task-specific spaces within a department, while maintaining the per-capita area standard. It is also required to diagnose whether spaces are efficiently used within each department. In the long term, a flexible operation of the guidelines will be needed according to the type of task and work patterns. In the meanwhile, guidelines must be prepared for deciding appropriate workspace sizes and their layouts, which reflect the characteristics of work and changes in working conditions. User participation in workspace planning is an effective tool for office building design that can improve the work performance. In recent years, planning tools have been actively developed overseas which has led the user-driven planning, not the expert-driven one. Nevertheless, expert consulting on the planning will also be needed to analyze the correlations between existing work conditions and spatial factors from which improvement plans for workspace will be derived.

The objective of this research is to diagnose and suggest ways to improve the planning practice of public office building. The government buildings were investigated to analyze the typical floor plans and department space layouts, and

space planning simulations were done to reflect the work characteristics and validate the suggested improvement plan. This research has its limitations in that only the sample survey was done and the work characteristics need to be categorized in further detail. Also, the typical floor plans of the government buildings need further to be analyzed and the building layouts in the site plan needs to be examined. The specifications of workspace planning, task-specific planning strategies, and workspace unit modules suggested in this study can be utilized in the future when revising the related regulations and establishing office building design guidelines and comprehensive facility management plans. The simulation methods for workspace planning and the regulatory consulting on the planning suggested here will lead to an effective operation of public office buildings in terms of public asset management. Mid- and long-term strategies need to be established to improve working environment, taking into account the fluctuations of the workforce, facility size, used/unused space, costs, etc., based on architectural planning. Guidelines are to be developed based on this research, with subsequent studies targeting the specific use of public office buildings.

Keyword

Public office building, Workspace, Characteristics of tasks, Workplace unit