

## **Effects of Last Planner System Practices on Social Networks and the Performance of Construction Projects**

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### **Abstract**

Management practices of lean production within the last planner system (LPS) have enabled significant improvements in project performance worldwide. These improvements are, in part, attributed to practices that strengthen social networks within projects and enhance effective communication. However, the relationships by which LPS management practices and organizational characteristics impact project performance are not well known and require in-depth investigation. To obtain a better understanding of these relationships, analyzed data was collected from nine construction projects from two Chilean construction companies. Correlation analysis was applied to the degree of implementation of LPS practices, social networks metrics, and key performance indicators (KPIs). Significant relationships were found among these three variables. It was also found that a high implementation level of LPS practices is usually related to improved project performance, although it is not always associated with improved network metrics. The results provide insights into project performance relationships with the organization and LPS practices that should lead to improve the managerial decision-making process regarding organizational and management practices for better project performance. The role of social network properties on project performance requires further research because optimal metrics have not been established yet..