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# 唇の大学

硕士学位论文

## 公路工程建设项目主要材料 采购策略与方式研究

**Research on Procurement Strategy and Methods of Main Material for Highway Construction Project** 



指导教师姓名:	彭丽芳 教授
专业名称:	物流工程
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#### 摘要

公路工程建设项目材料成本约占施工总成本的 60%~70%,而主要材料成本 占材料成本的 80%以上,其中材料采购成本受组织外部不确定性因素和人为主观 因素影响较大,是公路工程建设项目成本控制的薄弱环节。针对公路工程建设项 目分布地域广、线路长、施工点多;项目远离城市、交通不便;材料采购计划受 施工实际进度影响变化大;主要材料价格受国际市场影响波动较大等特点,研究 适合公路工程建设项目主要材料的采购策略与方式,强调供应商关系管理,以期 降低主要材料采购成本,进而降低施工总成本,对施工企业提高经济效益,提升 市场竞争力具有重要指导意义。

本文是以采购管理的三个层次活动为主线展开研究的,首先对文中用到的主 要概念进行界定,介绍文章的理论框架,接着分析公路工程建设项目的特点及材 料分类,以及主要材料采购现状及其存在的问题,归纳出主要材料的采购特点和 采购成本控制要点;其次指出材料采购计划是采购工作的起点和依据,采购计划 随工程进度计划变化而变化,探索施工进度计划调整方法和采购计划的编制方 法;第三部分通过研究集中采购策略、分散采购策略、公开招标方式、邀请招标 方式以及询价采购方式在主要材料采购应用中的优缺点,以便施工企业根据具体 情况快速决策主要材料的采购策略与方式,并采取有效的应对措施确保采购管理 目标的实现,是本文的重点;第四部分强调供应商管理是采购管理的重要内容, 研究如何在采购过程中加强供应商关系管理,建立长期合作伙伴关系,以降低材 料采购成本;最后通过案例数据统计分析论证所选用的采购策略与方式在公路工 程建设项目主要材料采购中的有效性和可操作性。

关键词:材料采购;策略与方式;供应商管理

#### Abstract

Material cost takes up 60% to 70% of the total cost of highway construction project, in which the main material cost accounts for over 80%. The material procurement cost is easily influenced by outside uncertain factors and human factors, which is a vulnerable part of highway construction project management. The highway construction project is featured by its wide distribution across different areas, covering long distance with large number of construct sites, inconvenient transportation due to remote constructions sites away from eities, plus flexible material purchase plan subject to the actual construction progress and fluctuating price of main material subject to the international market, and so on. In regard to this, it is of great significance to explore suitable procurement strategies and methods of main material in highway construction project, and stress supplier relationship management which helps reduce the procurement cost of main material and the total cost of highway construction project, so as to improve the economic benefit and market competitiveness of construction enterprises.

The thesis takes three stages of procurement management as the main thread. Firstly, it defines the main concepts in the thesis and introduces the theoretical framework. Then it analyzes the features of the highway construction project, categories of material used in construction, the current situation and the existing problems of procurement management of the main material in highway construction project, based on which the procurement features of main material and procurement cost control outlines are summarized.

Secondly, the thesis points out that the material procurement plan is the start point and the very foundation of procurement, which is subject to the actual construction progress. Then methods of adjusting the construction progress schedule and drawing the procurement plans are explored.

Thirdly, the thesis studies the merits and demerits of centralized procurement

strategy, decentralized procurement strategy, open tender method, invited-to-tender method, and inquiry procurement method in procurement the main material of highway construction project respectively with the aim to facilitate the decision-making of construction enterprises on choosing the best strategy and method of procurement main material based on the actual situation, and the achievement of the procurement management objectives by taking effective measures. This part is the key part of the thesis.

Fourthly, the thesis stresses that supplier management is an important element of procurement management. It studies how to strengthen the supplier relationship management, and how to establish a long-term cooperation partnership with suppliers, in order to reduce the procurement cost of the main material.

Finally, the thesis demonstrates with statistical analysis of a case the validity and feasibility of a particular strategy and method of main material procurement in highway construction project.

Key Words: Material Procurement; Strategy and Method; Supplier Management.

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