

OVERCOMING CAUSES OF CLAIM  
DISPUTES IN CONSTRUCTION PROJECTS: A  
DEMATEL BASED MODEL

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## SUPERVISOR'S DECLARATION

I/We\* hereby declare that I/We\* have checked this thesis/project\* and in my/our\* opinion, this thesis/project\* is adequate in terms of scope and quality for the award of the degree of Master of Project Management.

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I hereby declare that the work in this thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at Universiti Malaysia Pahang or any other institutions.

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OVERCOMING CAUSES OF CLAIM DISPUTES IN CONSTRUCTION  
PROJECTS: A DEMATEL BASED MODEL

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## ABSTRAK

Pertikaian tuntutan tidak dapat dielakkan kerana projek pembinaan terkenal dengan kerumitan dan sarat dengan risiko serta memerlukan kerjasama jangka panjang dalam kalangan pelbagai pihak. Kajian terdahulu hanya menyiasat punca dan kesan pertikaian tuntutan dalam sektor pembinaan; sedikit yang telah menyiasat hubungan antara faktor-faktor berkenaan punca berlakunya pertikaian tuntutan, bahkan kurang kajian yang mencadangkan strategi untuk mengatasi masalah pertikaian tuntutan. Matlamat kajian ini adalah untuk menganalisis punca utama pertikaian tuntutan dalam projek pembinaan, dan mencadangkan strategi untuk mengelakkan pertikaian tuntutan dalam projek pembinaan, dengan menggunakan kaedah kajian campuran yang menggabungkan data kualitatif dan kuantitatif yang dianalisa dengan kaedah DEMATEL, serta meneroka hubungan antara faktor tersebut. Senarai punca dan strategi kajian telah dihasilkan daripada kajian literatur yang berkaitan, dengan enam belas (16) punca dan sembilan (9) strategi telah diambil kira. Pendekatan yang dikenali sebagai Makmal Percubaan dan Penilaian Membuat Keputusan, atau DEMATEL, digunakan untuk membina hubungan sebab-akibat antara factor-faktor berhubung punca dan strategi dengan matlamat untuk memahami dinamik ini dengan lebih baik dan mencari cara yang berkesan untuk menanganinya. Menurut data yang diperolehi daripada tiga belas (13) responden, punca utama yang menyumbang kepada pertikaian tuntutan dalam projek pembinaan adalah ketidaktepatan anggaran kos projek (C7), komunikasi yang lemah antara semua pihak (C15), pelanggaran kontrak (C4), salah tafsir kontrak (C5), masalah kewangan pihak kontraktor (C3), pesanan variasi disebabkan keperluan baharu pelanggan (C8), lukisan dan spesifikasi yang bercanggah (C14), dan kesilapan dan kecuaiian dalam reka bentuk (C13). Sebaliknya, lima (5) strategi paling penting untuk mengatasi masalah pertikaian tuntutan dalam projek pembinaan ialah prosedur RFI (S6), kejelasan bahasa kontrak (S2), komunikasi berkesan (S3), Kaedah Laluan Kritikal (CPM) (S8), dan pengiktirafan bersama perubahan (S5). Penemuan kajian ini boleh memberikan bantuan penting dalam membangunkan pelan untuk menangani isu pertikaian tuntutan yang wujud dalam industri secara berkesan untuk pihak berkepentingan dalam sektor pembinaan dan juga kerajaan.

## ABSTRACT

Claim disputes are inevitable as construction projects are renowned for being extremely complicated and loaded with risk and necessitate long-term collaboration among a variety of parties. Previous studies have only investigated the causes and effects of claim disputes in the construction sector; little have investigated the relationship between the different factors of causes and less on proposing strategies to overcome claim disputes. The aim of this study is to analyse the main causes of claim disputes in construction projects, and to propose strategies to avoid claim disputes in construction projects by adopting mixed method research that combines qualitative and quantitative data which utilizes DEMATEL method of data analysis by exploring the relationships between those factors. A list of causes and strategies for the study was produced from a review of the relevant literatures, with sixteen (16) causes and nine (9) strategies were retrieved. The approach known as Decision-Making Trial and Evaluation Laboratory, or DEMATEL, was applied to construct a causal relationship between the factors of causes and strategies with the goal of better comprehending these dynamics and finding effective ways to address them. According to the data obtained from thirteen (13) respondents, the primary contributing causes of claim disputes in construction projects are project cost underestimation (C7), poor communication among the parties (C15), contract violation (C4), contract misinterpretation (C5), contractor's financial difficulties (C3), variation order due to client's new requirements (C8), conflicting drawings and specifications (C14), and omissions and errors in design (C13). On the other hand, five (5) most significant strategies to overcome claim disputes in construction projects are RFI Procedure (S6), clarity of contract language (S2), effective communication (S3), Critical Path Method (CPM) (S8), and joint recognition of changes (S5). The findings of this study can provide significant assistance in developing a plan to effectively handle the issue of claim disputes that exists within the industry for the stakeholders in the construction sector and also, the government.



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