BENCHMARKING FRAMEWORK FOR PERFORMANCE IMPROVEMENT OF THE ROAD MAINTENANCE SERVICES IN THE NEW ZEALAND ROADING SECTOR

PhD Work-In-Progress

By:

Saeed HAJI KARIMIAN

PHD Candidate

School of Engineering and Advanced Technology
Massey University
OUTLINE

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This research aims to establish for the New Zealand road maintenance sector the best practice benchmark techniques, benchmarking opportunities in the road sector, relevant international comparators for benchmarking, barriers and risks to benchmarking and framework for performance improvement.

The research aims to bridge existing knowledge gap by seeking answers to the following research questions:

1) What suitable benchmarking methodologies for maintenance services are currently in use in other roading agencies and similar industries in New Zealand and overseas?

2) How could such successful methodologies be adapted to the specifics of the roading sector in New Zealand?

3) What fit-for-purpose benchmarking techniques can be formulated for performance monitoring and improvement of the road maintenance services in the NZ roading sector?
Research objectives:

As a key outcome of the above enquiries, the research will aim to develop a framework for measuring and monitoring the performance, quality and cost of maintenance services within the NZ road sector. The framework will be used for the following purposes:

- Translating performance, quality and cost of the maintenance operations into a level of service and value-for-money model for use in evaluating and comparing maintenance service performance across the NZ sector.

- Comparing maintenance cost and performance between networks within New Zealand and against comparable overseas organisations.

- Providing a schema for the design and development of a working benchmarking model.

The research will be carried out in four stages over two to three years as follows:

- Literature and best-practice review of suitable benchmarking methodologies for maintenance services currently in use in other roading agencies and similar industries in New Zealand and overseas.

- Focus group meeting with experts in the roading and allied sectors to validate the identified high level drivers that underpin best practice performance in allied sectors.

- Online structured surveys amongst consultants, contractors and policy makers in the roading sector aimed at providing a quantitative assessment and priority ranking of the identified parameters for the development of a benchmarking framework for the maintenance services.

- Industry validation workshop on the feasibility/practicality of the roll-out of the developed model in the roading sector.
The research will aim to develop a framework for monitoring, measuring and reporting performance on schedule, scope, quality and cost of maintenance services within the NZ road sector. The framework will be used for the following purposes:

- Translating performance on schedule, scope, quality and cost of the road pavement maintenance operations into a level of service and value-for-money model for use in evaluating and comparing road pavement maintenance and rehabilitation service performance across the NZ roading sector.

- Comparing maintenance cost and performance between networks within New Zealand and against comparable overseas organisations.

- Providing a schema for the design and development of a working benchmarking model for timely performance improvement.

The NZ Government spends $2.5 - $3 billion annually in maintaining, operating and renewing the 23 roading networks in New Zealand (National Infrastructure Unit, 2011). In addition, the central government’s investment in the roading infrastructure is about 1.4% of the GDP (NZ Treasury, 2012; NZTA, 2009). These investments are strategic levers for ramping up sustainable economic growth and development (Cunningham, 2010; Page, 2010). The findings of the study will benefit New Zealand roading industry by establishing a framework for optimizing the outcome of this multibillion dollar investment in the roading system by finding the best practice benchmarking technique for improving productivity and performance of New Zealand roading sector.
REFERENCES


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