

**TECHNOLOGY TRANSFER FROM FOREIGN
CONTRACTORS TO LOCAL CONTRACTORS**

**A CASE STUDY FROM NEW KELANI BRIDGE
CONSTRUCTION PROJECT**

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A CASE STUDY FROM NEW KELANI BRIDGE CONSTRUCTION PROJECT

**A study has been carried out to assesses Technology Transfer in New
Kelani Bridge Construction Project Implemented by the Road
Development Authority Sri Lanka**

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Thesis/ Dissertation submitted in partial fulfilment of the requirements for the degree
Master of Science

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October 2022

DECLARATION

I declare that this is my own work and this thesis/dissertation does not incorporate without acknowledgement any material previously submitted for a Degree or Diploma in any other University or institute of higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

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The above candidate has carried out this research for the Masters dissertation under my supervision.

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ABSTRACT

The highway infrastructure development sector contribute massively to the economic growth in Sri Lanka and Technology Transfer (TT) is essential to advancement of technologies used in construction. The road sector of Sri Lanka has taken series of initiatives on TT with their foreign funded road construction projects. Despite the involvement of local professionals in above projects, the outcome of technology transfer into Sri Lanka has not been evaluated to improve the rates of TT. Therefore, this research was carried out with the objective of appraising the effectiveness of Technology Transfer (TT) through local professionals based on the case study of New Kelani Bridge Construction Project (NKBP). A previously developed framework from literature review was utilized which has main seven enablers and value creations such as transfer environment, transferor characteristics of transferor, characteristics of transferee, advancement of the economy, advancement of knowledge and performance of the project. A questionnaire-based survey was used to collect the data from forty-seven (47) local professionals directly involved in project activities. The collected data was analyzed according to the framework and recommendations were summarized. TT Index of 76 was determined for overall performance of the NKBP and contract package 2 was the most effective in transferring technology among other contract packages with a TT index of 85. Dealing with government influences under the main factor of transfer environment had the lowest success values. Having studied the case in depth, reviewing the government policies, evaluation of government enforcement, encouraging joint venture arrangements with foreign companies, providing more training opportunities, conducting performance evaluations of local professionals after training are recommended to improve the underperforming perspectives of technology transfer in the future projects. This report assists Sri Lankan Road construction companies and government agencies to re-evaluate their policies.

Key words: Technology Transfer (TT), Sri Lanka, Highway infrastructure, Technology Transfer Index

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TABLE OF CONTENT

DECLARATION	i
ABSTRACT	ii
ACKNOWLEDGEMENT	iii
TABLE OF CONTENT	iv
LIST OF TABLES	vi
LIST OF CHARTS	vii
LIST OF ABBREVIATIONS	viii
LIST OF APPENDICES	ix
CHAPTER 1: INTRODUCTION	1
1.1 Introduction	1
1.2 Problem statement	2
1.3 Research Objectives	3
1.3.1 General Objective	3
1.3.2 Specific objectives	3
1.4 Significance of Research	4
1.5 Methodology	4
CHAPTER 2 – Literature Review	6
2.1 Introduction	6
2.2 Definition of technology transfer	6
2.3 Evaluation of Technology Transfer	6
2.3.1 Transfer environment	10
2.3.2 Learning environment	11
2.3.3 Transferor and transferee characteristics	11

2.3.4	Economic advancement	12
2.3.5	Knowledge advancement	12
2.3.6	Project performance	12
CHAPTER 3 – RESEARCH METHODOLOGY		13
3.1	Research approach	13
3.2	The Sample.....	13
3.3	Questionnaires.....	13
3.4	Reason for selection of the methodology.....	14
3.5	Data Analysis	15
3.6	Ethical consideration.....	16
3.7	Limitation of the study	16
CHAPTER 4: ANALYSIS OF DATA		17
4.1	Nature of business of your company affiliation with the project.....	17
4.2	Level of education of respondents	18
4.3	Experience in relevant field	19
4.4	Designations of Staff.....	21
4.5	Technology Transfer performances	23
4.6	Comparative Analysis	24
4.7	Benchmarking of performance of technology transfer	26
4.8	Identified main issues in TT of NKB.....	32
CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS		34
5.1	Conclusions.....	34
5.2	Recommendations.....	36
References.....		38

LIST OF TABLES

Table 4.1: Nature of business of respondents	17
Table 4.2: Level of education of respondents	18
Table 4.3: Experience in relevant field	20
Table 4.4: Designations of staff	21
Table 4.5: Summary of TT Evaluation	40

LIST OF CHARTS

Chart 1.1: Flow chart of methodology of study	5
Chart: 2.1 Seven proposed perspectives by (Stewart,waroonokun, 2007)	9
Chart 4.1: Nature of Business of respondents	17
Chart 4.2: Level of education of respondents (Overall)	18
Chart 4.3: Level of education of respondents	19
Chart 4.4: Experience in relevant Field (Overall)	20
Chart 4.5: Experience in relevant Field	21
Chart 4.6: Designations of Staff (Overall)	22
Chart 4.7: Designations of Staff	22
Chart 4.8: NKB TT Index	28
Chart 4.9: Client TT Index	31
Chart 4.10: Consultant TT Index	31
Chart 4.11: Package 1 TT Index	31
Chart 4.12: Package 2 TT Index	31

LIST OF ABBREVIATIONS

Abbreviation	Description
TT	Technology Transfer
NKBP	New Kelani Bridge Project
JICA	Japan International Cooperation Agency
SMCC	Sumitomo Mitsui Cooperation Company
RDA	Road Development Authority
GOSL	Government of Sri Lanka
JMT	JFE Engineering, Mitushi Engineering and Ship Building and Toda Cooperation
FDI	Foreign Direct Investment
MOH	Ministry of Highways

LIST OF APPENDICES

Appendix A: Summary of TT Evaluation	40
Appendix B: Questioner for professionals engaged with NKB Project	41