

TABLE OF CONTENTS

| | |
|--|------|
| TITLE PAGE | i |
| AUTHENTICATION SHEET | ii |
| STATEMENT OF AUTHENCITY OF WRITTEN THESIS..... | iv |
| ACKNOWLEDGMENTS | v |
| TABLE OF CONTENTS | vi |
| LIST OF TABLES..... | viii |
| LIST OF FIGURES..... | ix |
| ABSTRACT..... | x |
| INTISARI..... | xi |
| CHAPTER ONE | |
| INTRODUCTION | 1 |
| 1.1 Background | 1 |
| 1.2 Problem Statement | 1 |
| 1.3 Research Questions | 2 |
| 1.4 Research Objectives | 3 |
| 1.5 Research Motivation | 3 |
| 1.6 Research Contribution..... | 3 |
| 1.7 Research Scope and Coverage | 4 |
| 1.8 Outline Structure | 4 |
| CHAPTER TWO | |
| LITERATURE REVIEW | 5 |
| CHAPTER THREE | |
| METHODOLOGY..... | 8 |
| 3.1 CO ₂ Emission Estimation..... | 9 |
| 3.2 Tapio Decoupling Model..... | 10 |
| 3.3 LMDI Decomposition Method..... | 13 |
| 3.4 Data Sources..... | 15 |

| | |
|--|----|
| CHAPTER FOUR | |
| RESULTS AND DISCUSSION..... | 18 |
| 4.1 Results | 18 |
| 4.1.1 CO ₂ emissions of the manufacturing sector across provinces | 18 |
| 4.1.2 Decoupling of the manufacturing sector across provinces | 20 |
| 4.1.3 The drivers of CO ₂ emissions of the manufacturing sector across provinces | 23 |
| 4.2 Discussion | 26 |
| 4.2.1 Decoupling analysis | 26 |
| 4.2.2 Decomposition analysis | 28 |
| CHAPTER FIVE | |
| CONCLUSIONS..... | 32 |
| REFERENCES..... | 35 |
| APPENDIX..... | 39 |